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ABSTRACT

Factors influencing the performance of handicapped students on the North Carolina Minimum Competency Test (Fall, 1978 administration) were analyzed. Educably mentally handicapped (EMH) and learning disabled (LD) students represented 83% of the 3,043 handicapped students who took the Fall, 1978 test. A questionnaire was designed to collect the following data from random samples of the EMH and LD groups: (1) test modifications employed; (2) history of special education services; and (3) remediation efforts in the Spring for those students who failed the test in the Fall. Only the section on test modifications was used for all other handicaps (i.e., hearing impaired, visually impaired, multiple handicap, and other) in order to determine their relationship to the passage rate. Data on student handicap, race, parent education level, and local school district were obtained from State Department of Public Instruction data tapes. The following conclusions were made: (1) procedures used to classify students as handicapped by local schools were inadequate; (2) better guidelines for the use of test modifications were required; and (3) the student characteristics of ability level, current performance level in reading and math, race, and parent education were related to successful performance on the test. (RI)

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FINAL REPORT

Performance of Exceptional Students on the North Carolina Minimum Competency Test 1978-1979

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Submitted to:

North Carolina State Board of Education

via

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North Carolina Competency Test Commission

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Preface

Faced with the realities of declining test scores, poor work performance, and general public dissatisfaction with the quality of schools, the North Carolina General Assembly made a fundamental change in State education policy by passing House Bill 204 in the summer of 1977. The Bill established a Competency Test Commission to recommend appropriate tests and standards to insure that students who received a high school diploma in North Carolina had the minimal skills necessary for functioning in society. This is a laudable goal indeed, but one marked by much controversy on a national as well as state level.

Our concern in developing and conducting this research was not with the policy of competency testing per se, but rather with the implementation of this policy at the local school level; more sepcifically, we were concerned with its consequences for the education of an important, yet largely ignored segment of the school population. Not only in North Carolina but across the nation, little attention has been given to issues concerning the competency testing of handicapped students. The immediate press of public demand for some type of minimum standards in secondary education usually has meant standards for the typical high school graduate, and these concerns were translated into tests that were appropriate for the typical secondary student.

Unlike many states, North Carolina did consider the handicapped in House Bill 204 in that 1) it was expected that all exceptional students would take the tests, excluding the most severely retarded, 2) test modifications would be developed, and 3) parents might apply to exempt their handicapped child. At the same time, there was no

empirical data (or for that matter, little information of any kind) on the effects of competency testing for the various handicapping conditions, on the predictors of successful performance, on the best way to implement competency testing with the handicapped, or even on the validity of available options for test modifications.

Although the long range benefits of the Competency Test Program in North Carolina have yet to be proven, it is our hope that this research will have immediate benefits for both the system and the handicapped child in North Carolina by clarifying local policies and procedures for the competency testing of such students, and by adding knowledge relevant to the improvement of their instruction. In pursuing these aims we were often reminded of a quote from Majone and Wildavsky (1978) about the study of public policy:

> Implementation is worth studying precisely because it is a struggle over the realization of ideas. It is the analytical equivalent of original sin; there is no escape from implementation and its attendant responsibilities. What has policy wrought? --- the implementor can only answer --- it depends (p. 116).

The following report is a preliminary attempt to specify those factors on which "it depends."

J D M

May 1980

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List of Abbreviations and Symbols

EMH	Educable mentally handicapped
LD	Learning disabled
VI	Visually impaired
HI	Hearing impaired
MH	Multiply handicapped
Other	All other handicapped coded on State data files
n	Number of cases in sample
N	Number of cases in population (State)
LEA	Local education agency
SDPI	State Department of Public Instruction
X^2	Chi square statistic
p	Alpha confidence level for statistic

Performance of Exceptional Students

on the North Carolina Minimum Competency Test

Introduction

Minimum competency testing is now a matter of State educational policy in North Carolina. Nevertheless, the special educational needs of exceptional students highlight a number of specific issues involved in minimum competency testing.

Although handicapped students differ from their classmates in significant ways that require special instruction, they must pass the Competency Test in North Carolina in order to receive a diploma. While parents can seek a specific exemption for an exceptional student, this option would automatically result in the student obtaining a certificate of attendance rather than a diploma. Therefore, it is important to determine the sociodemographic factors and student characteristics which place the exceptional child at risk for failure in the competency program.

Because the school program for exceptional students represents a special adaptation of the regular program, there are a number of remedial strategies for basic skills instruction that vary with the nature and severity of student needs. Also, there are many types of test modifications that may be used to insure that exceptional students receive appropriate test administration. At present, however, it is not known what role special education services play in preparing exceptional students for the Competency Test. Similarly, little is known about the nature and effectiveness of remediation for exceptional students who fail their initial test.

A total of 3,043 handicapped students took the Minimum Competency Test in North Carolina during the Fall of 1978. The present research represents an initial attempt to understand the factors that influenced their performance, and thereby to assist the State in achieving the goal of more appropriate public education for the handicapped.

Broad research questions addressed by the project include:

1. What are the characteristics of exceptional students who pass and fail the Competency Test?
2. What test modifications were employed and were they related to student performance?
3. Were there significant variations in amount and content of services provided to exceptional students who passed and failed the Competency Test?
4. What special remediation efforts were used for those students who failed the Test in 1978?
5. What are the attitudes of teachers and administrators toward competency testing of exceptional students?

Although those issues associated with competency testing involve all exceptional students regardless of type of handicap, they are particularly salient for those who are educably mentally handicapped (EMH) and learning disabled (LD). These two groups represent the largest percentage of exceptional students who might be considered at risk for failure in the competency program; together, EMH and LD students represented 83% of all handicapped students who took the 1978 Competency Test. Unlike more severely handicapping conditions, many of these students can be expected to demonstrate minimal competencies, and/or to profit readily from remedial programs. Therefore,

although all handicapping conditions were studied with respect to demographic characteristics and conditions of test administration, particular emphasis was given to the study of EMH and LD students in conducting the present research.

In the section of the report which follows, we begin by briefly reviewing relevant literature on the competency testing of handicapped students to place the North Carolina program in national perspective. Also, a brief description of the program as it was implemented in 1978 is provided.

Literature Review

Today the term "minimum competency testing" refers to an educational movement in which tests of essential academic skills are used as a means for mandating specific standards for graduation from the public schools. The movement began in Oregon in 1972, and as of 1979, thirty-six states had adopted some kind of minimum competency test program (NASDSE, 1979). In the remaining states the issue is now under consideration (Pipho, 1979).

Although the term "minimum competency testing" has appeared most frequently in the educational literature over the past five years, the concept behind this type of assessment has existed for more than five decades (Britell, 1980). Analogies can be drawn between present day competency tests and other evaluation efforts such as the New York Regents examinations begun in 1878 for high schools, or the College Board testing program for admission to higher education. Similarly, during World War I the military used proficiency tests to assess required levels of competencies for various trades. What is new

about minimum competency testing, and what perhaps accounts for its attendant controversy, is that it represents a legislative response to public demand for greater accountability in education.

One of the factors behind the public demand for minimum educational standards has been the distressing decline in performance by high school students on standardized tests (Gallup, 1979). In addition to significant drops in Scholastic Aptitude Test (SAT) scores over the past decade, the National Assessment of Educational Progress reported declines in science knowledge between 1969 and 1973 that amounted to a half-year loss in learning. Surveys of writing skills showed that students used a more limited vocabulary in 1974 than in 1970, and wrote in a shorter, more "primer-like" style. The Association of American Publishers was forced to revise its textbook study guide to a ninth grade reading level for college freshman. Finally, a U.S. Office of Education sponsored study found that 23 million Americans were functionally illiterate.

Faced with the serious consequences of these trends for the next generation, and by an increasing vocal and hostile public, state legislatures have moved with uncommon speed to establish minimum educational standards and seized upon the competency test as a means for restoring the value of a high school diploma (Gallagher, 1979). The implicit assumption behind this strategy is that both schools and students will rise to meet the standard. However, the handicapped are a segment of the school population for whom the standard may not be attainable at all, or attainable only under certain circumstances, or only with substantial changes in their present educational program.

Competency Testing of Handicapped Students

In the rush to institute competency test programs into regular secondary education, state legislatures have generally failed to consider issues involving handicapped students. On the face of it, competency test programs designed specifically for the typical high school student seem to pose more problems for the handicapped than benefits.

For instance, there is presently a great deal of discussion over whether competency test programs designed for the non-handicapped conflict with new legal protections afforded to the handicapped (McClung & Pullin, 1978; Morrisey, 1978; Rosewater, 1979). These protections, as exemplified by the Education for All Handicapped Children Act of 1975 (P.L. 94-142), include: (a) provision of a free appropriate public education in the least restrictive environment; (b) extensive due process procedures, including the right of notification upon initiation or change in the student's educational placement, parent involvement in educational planning, and the opportunity to present complaints and/or for a due process hearing on any complaint about educational placement or services; (c) prohibition of discrimination on the basis of disability; and (d) provision of individualized educational plans.

Rosewater (1979) has noted that performance on a minimum competency test might be used as a placement device for special remedial programs and thereby constitute a violation of the due process and evaluation procedures mandated by P.L. 94-142 if they are not followed explicitly. Also, in some states, minimum competency testing may discriminate against the handicapped by automatically excluding them from the competency test program, and hence from a high school diploma. While this is not the case in North Carolina, there are no

provisions for rewarding the successful completion of an approved "special" program of secondary education. Finally, Morrissey (1980) has noted that the mandate for individual program planning might be violated if attention is not given to the individual learning problems of handicapped students in the administration of competency tests or related educational planning.

In the interest of fairness to handicapped students, a number of states permit modified test administrations such as the use of large print and audio cassette editions with extended time limits. However, the use of test modifications must also be scrutinized from the standpoint of the goals for competency testing in general. Students with similar handicaps and abilities may perform quite differently when permitted to use different aids, and thereby produce unreliable and inequitable results (Baratz, 1978; Rosewater, 1979). Also, if test modifications have the effect of lowering standards for passing, then the goal of insuring minimum competence would be compromised.

A few states have developed competency test programs that attempt to meet the needs of handicapped students. Nevertheless, as of 1978, Smith and Jenkins (1980) found that 40% of the states in their survey had not established or finalized their policies regarding the competency testing of handicapped students. None of the states they surveyed waived competency test requirements for the handicapped. Some programs require the handicapped to abide by the same procedure, and meet the same standards as the non-handicapped. Several states provided for either a differential diploma in "special education" or award a certificate of attendance for handicapped students who did not pass competency tests. One state used different tests with different

standards for handicapped students, and several have used the IEP (Individualized Education Plan) to prescribe appropriate tests and set standards for graduation. Morrissey (1978) has suggested yet another alternative for accommodating the handicapped. This alternative involves the differential weighting of multiple graduation criteria for the handicapped but could, as Morrissey suggests, be quite cumbersome to implement.

In conclusion, it appears that while minimum competency testing has become a matter of national educational policy, there is no consistent policy among the states regarding the treatment of handicapped students with respect to competency test procedures and requirements.

Of particular interest in the present study is the North Carolina Competency Testing Program and its provisions for accommodating the handicapped. A brief description of this program follows.

North Carolina Competency Test Program

In June 1977, the North Carolina General Assembly passed House Bill 204, "The High School Graduation and Competency Program," which stipulated that a high school minimum competency test must be passed if a student is to receive a high school diploma. Further, this Bill established a Competency Test Commission to recommend appropriate tests and procedures to the State Board of Education. According to H.B. 204, a competency test was to be administered each November to all eleventh grade students, and the test could be readministered repeatedly at designated intervals to students who failed to pass.

The North Carolina Competency Test as constructed by the Competency Test Commission was designed to measure two skills: reading and math. These two areas were chosen because they are essential parts of the

school curriculum, are necessary for minimum functioning in society, and are two areas around which achievement tests have already been constructed.

Specific test items were formulated to correspond to teacher-stated objectives and were written so as to test basic, practical reading and math skills. In addition to skill in interpretative reading, the reading section examines the ability to follow simple directions; measures vocabulary; evaluates skill at locating information; and tests ability to interpret charts, maps, and illustrations. The math section measures the student's ability to compute with integers, decimals, fractions, and percents; to solve problems involving money matters; to do measurements and work with them; to apply geometric ideas to everyday situations; to interpret and use maps, graphs, charts and tables; to apply knowledge of probability and statistics to everyday situations; and to estimate the answers to problems.

A student must correctly answer at least 72%, or 87 out of 120, of the reading items to pass the reading section. In order to pass the math section, a student must answer at least 64%, or 77 out of 120, of the math items correctly. These cut-off scores were determined by the North Carolina Competency Test Commission following a series of trial studies prior to the first actual administration of the test in November 1978. For example, a comparison between the trial competency test results and the California Achievement Test showed that the math section of the Competency Test was considerably more difficult than the reading test. Secondly, teachers from twenty schools randomly selected from across North Carolina were asked to identify students who in

their opinion were marginally competent and those they felt to be incompetent. It was found that students identified as marginally competent did better than those identified as incompetent. Thirdly, teachers who were specialists in reading and mathematics, came together and provided their best judgment on what represented a minimum competency passing score. Finally, several statistical studies were also run before cut-off points were designated (Test Commission, 1978).

Concerning the handicapped, the original North Carolina Competency guidelines included the following three points:

1. All exceptional children, excluding the trainably retarded or severely retarded, shall take the tests;
2. Test adaptations or modifications in test administration will be developed where needed;
3. A parent may apply for exemption to his local school board for his exceptional child on the grounds that the test might be harmful. Exemption does not mean that a regular diploma will be granted.

Since these guidelines were written, procedural competency test modifications have been made for the handicapped in North Carolina and were used for the first time in November 1978. These test modifications include exams written in braille and large print, extended length of time in taking the test, permission to write in the test booklet rather than on an IBM answer sheet, instructions given in sign language for deaf students, an audio-cassette tape recording of instructions, and recording of answers by a proctor. These modifications may be requested by each school based committee for its handicapped students who might require them, but are not used automatically

in every case. Also, only students enrolled in special education programs are eligible for test modifications.

A total of 81,353 students in North Carolina public schools took the Fall 1978 Competency Test, with an overall passage rate of 90% on reading and 85% on math. The passage rate for non-handicapped students was 95% on reading and 88% on math. A total of 3,043 handicapped students were given the test. While the passage rate for the visually impaired was on par with that for non-handicapped students, the performance of students with other handicapping conditions was considerably poorer.

The following results were reported by the State Department of Public Instruction in 1979:

	Reading		Math	
Group	Number Tested	% Pass	Number Tested	% Pass
Educable Mentally Handicapped	1,890	12	1,887	7
Learning Disabled	652	56	652	47
Hearing Impaired	79	75	79	70
Visually Impaired	130	92	130	88
Multiple Handicap	77	32	76	28
Other	215	66	214	57

In order to provide greater understanding of the factors that contributed to the results and to assist the State in clarifying its policies regarding the competency testing of handicapped children, the State Board of Education approved the present research project among four others to be conducted by University faculty across the State. The project began in October of 1979 under a contract to survey

the public schools that tested handicapped students in the Fall and Spring of 1978-79. Particular attention was to be given to the demographic characteristics of students and test modifications employed. In addition, for EMH and LD students we proposed to gather more extensive data on their academic characteristics, background of special education service, and remedial programs.

In the next section the methods used to accomplish these tasks will be described.

Method

The population of interest in this study was all handicapped students (N = 3043) who took the Fall, 1978, Competency Test in North Carolina public schools. The sampling plan for the study survey was devised with four considerations in mind: (a) type of handicap; (b) geographic representation; (c) confidentiality of student records; and (d) minimum burden of response on local education agencies (LEAs). A survey instrument was devised to gather information on the demographic characteristics and test modifications used with all types of handicaps. The basic instrument was expanded to collect additional data on student characteristics and educational programs for EMH and LD students since these groups represented the most prevalent handicaps tested (83%), and since they exemplified most clearly the various issues involved in the competency testing of handicapped students.

Sample Selection

Since only 5% of EMH students passed both sections of the 1978 Fall test (n = 75), it was decided to sample all of these students to insure an adequate number for data analysis. In order to reduce the

burden of response on LEAs, a random sample of 10% of EMH students who failed (n = 180) was then drawn for comparative purposes. LD students were selected by drawing a random sample of 25% who were tested (n = 163). In each case LEAs which contributed a single student were eliminated to insure confidentiality of response. Also, an additional 22 EMH students and 30 LD students were sampled to offset attrition. In order to gather information on the demographic characteristics and test modifications used with other types of handicaps, all visually impaired (n = 145), hearing impaired (n = 129), multiply handicapped (n = 87), and other handicaps (n = 235) were surveyed with a brief questionnaire.

The total number of cases sampled was 1,033 after eliminating single students within a given school. Of the 145 LEAs in the State, 133 were represented; the 12 not selected were either eliminated by random sampling or listed no LD students who took the Fall 1978 test. The sample as drawn represented all educational districts in the state and 92% of the LEAs. Also, the sample preserved the ratio of LD to EMH students in the population that was tested, and in all handicaps except EMH it preserved the ratio of passing students to failing students.

Nevertheless, during the course of data collection, we discovered a large proportion of students (15.6%) who were labeled as handicapped on the Fall, 1978 test records were not officially classified as handicapped by the local schools. Although the survey return rate (90%) would be quite acceptable for a project of this nature, when attrition (10%) was combined with misclassification and invalid protocols (6%), the final acceptable sample was reduced by 328 students (31.8% overall).

Because the issue of misclassification represented a major finding by itself, it was presented in some detail in the Results section of the report.

Survey Instrument and Procedure

In order to reduce the burden of responding, survey questions were developed that could be answered by referring to existing and readily available documents: the students' Individual Education Plan (IEP) and/or cumulative folder. Also, whenever possible, questions were written in an objective checklist and multiple choice format. Prior to data collection the investigators consulted special educators and State Department staff, and performed a literature review, to insure that the information collected was practical and relevant to the issues under study. Also, the instrument was field tested in local schools to insure ease of completion and minimum burden of response.

The overall instrument for the LD and EMH samples was divided into three sections: (1) modifications employed, (2) history of special education services, and (3) remediation efforts (this data was gathered for those students who failed the Fall, 1978 test). The complete instrument has been provided in Appendix A. Only a portion of the instrument (Part 1: Modifications) was used for all other handicaps in order to determine test modifications used and their relationship to the passage rate. Data on student handicap, race, parent education level, school district, and LEA were obtained from State Department of Public Instruction data tapes.

The seven page (21 question) instrument could be completed in less than one hour, including the location of student records. A letter of introduction and explanation of the project was sent to all

superintendents, special services coordinators, principals, and special education teachers in the State who were responsible for students who were sampled. They were assured that the information would be treated confidentially and that all data would be reported in group statistics. To insure confidentiality of student records, a procedure was followed in which face sheet data which identified individual students was deleted by the school (see Appendix A for copies of these materials).

The brief questionnaire (Part 1: Modifications Survey) was mailed to high schools on November 15 for all those students classified as multiply handicapped, visually impaired, hearing impaired and other. The complete (long form) questionnaire was mailed on December 7 for the EMH and LD samples. The deadline for returning both was set for March 1.

Site Visits

In addition to the survey data, 15 site visits were conducted at high schools throughout the State. Schools were selected to be representative geographically and with regard to rural/urban population and size of LEA. The purpose of the site visits was to follow-up information obtained from the survey and to obtain the evaluations, opinions, and recommendations of local school personnel regarding the use of competency tests with handicapped students. In each case an attempt was made to hold structured interviews with special education teachers and administrators in each school. A copy of the interview has been included in Appendix A.

Results

The principal findings of the study were summarized under four

general headings: (a) Misclassification and attrition; (b) Variability in test administration; (c) Factors associated with test outcome (pass/fail); and (d) Consequences of Fall failure (spring test performance). In each instance a variety of variables were analyzed, including: (a) contextual variables -- educational district, test administration, and use of modifications; (b) student characteristics -- race, sex, parent education, ability level and problem behaviors; (c) student background -- years in North Carolina schools, retention in grade, attendance, and interests; (d) educational variables -- reading and math performance levels, classified at-risk-of-failure, nature and history of special education services, and other remediation. In general a nonparametric (Chi-square) analysis strategy was used to determine the association between variables of interest. The reader may note that the ns in some tables vary slightly due to incomplete information and/or replacement for attrition.

Misclassification and Attrition

The final composition of the study sample is described in Table 1. As noted above, 161 (16%) students classified as handicapped on the Competency Test data tapes were not classified as handicapped according to the schools surveyed. The largest percentage of misclassified students was for the visually impaired (30%), and the lowest was for EMH students (11%). With the exception of visually impaired, the rate of misclassification varied little across other categories of handicap (11% - 15%).

The percentage of unreturned surveys (no response) varied from 5% for multiple handicaps to 13% for EMH students. Another type of attrition in the sample was due to unusable protocols. This category contained a relatively small number of cases (3%) and included surveys that were returned too late for computer processing as well as those that

Table 1

Misclassification and Attrition Rate in Sample by Handicap

Handicap		Sampled	Misclass	No response	Unusable	Suspect	*Correct Classification
Educable Mentally Handicapped	n	252	27	32	11	10	172
	%		10.7	12.7	4.4	3.9	68.2
Learning Disabled	n	185	26	11	11	17	118
	%		14.1	5.9	5.9	9.2	64.3
Visually Impaired	n	145	44	17	1	--	83
	%		30.3	11.7	0.7		57.2
Hearing Impaired	n	129	16	11	5	--	97
	%		12.4	8.5	3.9		75.2
Multiple Handicapped	n	87	12	4	2	—	69
	%		13.8	4.6	2.3		79.3
Other	n	235	36	29	5	--	165
	%		15.3	12.3	2.1		70.2
Total	n	1033	161	104	35	28	705
	%		15.6	10.1	3.4	2.7	68.2

*IQ range reported was outside SDPT guidelines for classification as EMH or LD

were too incomplete for analysis.

Finally, a second type of misclassification was detected in the EMH and LD samples. In these cases, discrepancies were found between the IQ (general ability) levels checked on the survey form and those allowable by State Department of Public Instruction guidelines for the definitions of EMH and LD. Specifically, eight students were classified as EMH who had IQs between 85 and 96 according to school records, and another two had IQs between 96 and 110. Also, 17 (9%) LD students who were sampled had IQ ranges checked between 61 and 73, and one was listed as having an IQ between 50 and 60. The effect of these errors on Competency Test performance was predictable in that nine (9) of the 10 misclassified EMH students passed the test, while only two (2) of the 17 misclassified LD students passed.

As noted in the previous section of the report, the three samples that were drawn (i.e. EMH, LD and all other handicaps) were each representative of the handicapped population who took the Fall 1978 Competency Test with the restriction that all EMH students who passed were included. In an attempt to evaluate the consequences of misclassification and attrition on the final study sample, a series of $\underline{X}^2$ (Chi square) goodness of fit tests were performed. The tests were used to compare the original sample values on a variety of variables to those found in a) the sample eliminating unreturned and unusable protocols (attrition), and b) the sample eliminating both categories of misclassified students as well as those lost through attrition (usable, correct classification).

Effects of Attrition. In general, attrition due to unreturned and unusable responses did not alter the characteristics of the study sample with respect to sex, race or parent education level for any of

the handicaps that were sampled (see Tables 1-3, Appendix B). Also, reference to Table 4 in Appendix B shows that attrition did not alter the passage rate in either the LD sample or sample of all other handicaps (i.e. VI, HI, MH and other). However, it was noted that the passage rate for EMH students dropped from 12% to 4% on the Reading Test, and from 7% to 3% on the Math Test, when unreturned and unusable cases were eliminated (see Table B.4).

Effects of Misclassification. Table 2 shows the characteristics of available students who were correctly classified. When characteristics of these samples were compared to those of the original samples, they did not differ with respect to sex, race or education level of parent. However, as Table 3 shows, misclassification did alter passage rate significantly in the EMH sample, and for the sample of other handicapping conditions (also, see Table 5, Appendix B, for original sample comparisons).

Thus, 81% of misclassified EMH students passed the Reading test and 78% passed the Math test. When these students and those lost to attrition were eliminated, only 22% of the remaining, correctly classified sample of EMH students passed the Reading test and 15% passed the Math test. Figures 1 and 2 translate these values into percentages based on the total number of EMH students taking the test in the Fall of 1978. Figure 1 shows that although 12% of the original sample of EMH students passed the Reading test, only 2% actually passed when the data was adjusted for misclassification and attrition. Figure 2 shows that comparable values on the Math test were 7% in the original sample and 1% based on our correctly classified sample.

Table 2

Characteristics of Correctly Classified (Study) Sample

Variable		EMH	LD	VI	HI	MH	Other
	n	172	119	82	97	66	165
Sex[1]	M	59.17	81.45	56.10	61.86	43.94	60.98
	F	40.83	18.55	43.90	38.14	56.06	39.02
Race	Indian	.60	.81	-	-	3.03	.61
	White	28.57	64.52	64.63	68.04	62.12	61.21
	Black	70.24	34.68	34.15	31.96	34.85	36.97
	Other	.60	-	1.22	-	-	1.21
Parent Education	Grade School	37.75	12.50	3.17	13.48	21.74	9.33
	Some H S	36.42	30.00	26.98	14.61	23.91	23.33
	H S Grad	23.84	35.83	39.68	46.07	43.48	40.67
	Post H S	1.99	21.68	30.16	25.84	10.87	26.67

[1]Note: All table values in percent of sample n.

Table 3

Percent Passing in Sample by Classification Status

Category	Reading n	Reading %	Math n	Math %
EMH Sample (n=254)				
Correct Classification	37	21.89	25	14.79
Misclassified	30	81.08	29	78.37
Attrition	24	50.00	21	43.75
Total	91	35.83	75	29.53
LD Sample (n=185)				
Correct Classification	76	61.29	64	51.61
Misclassified	20	45.45	16	36.36
Attrition	7	31.82	6	27.27
Total	103	54.21	86	45.26
Other Handicaps (n=596)				
Correct Classification	242	59.02	216	52.68
Misclassified	94	87.04	84	77.78
Attrition	53	71.62	50	67.57
Total	389	65.77	351	59.19

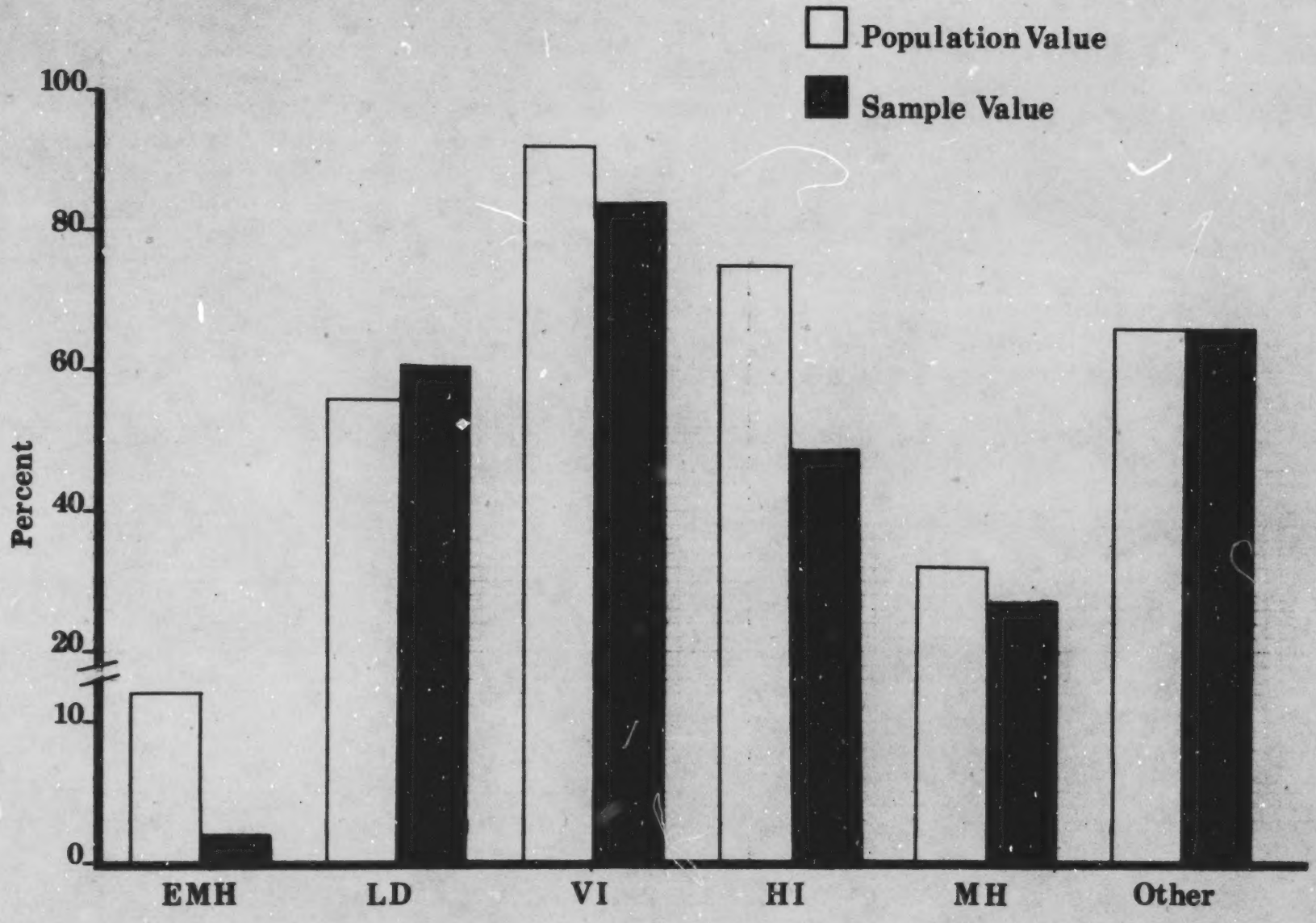

Figure 1. Percent correct classified students passing reading test compared to original percent reported for the State in Fall 1978.

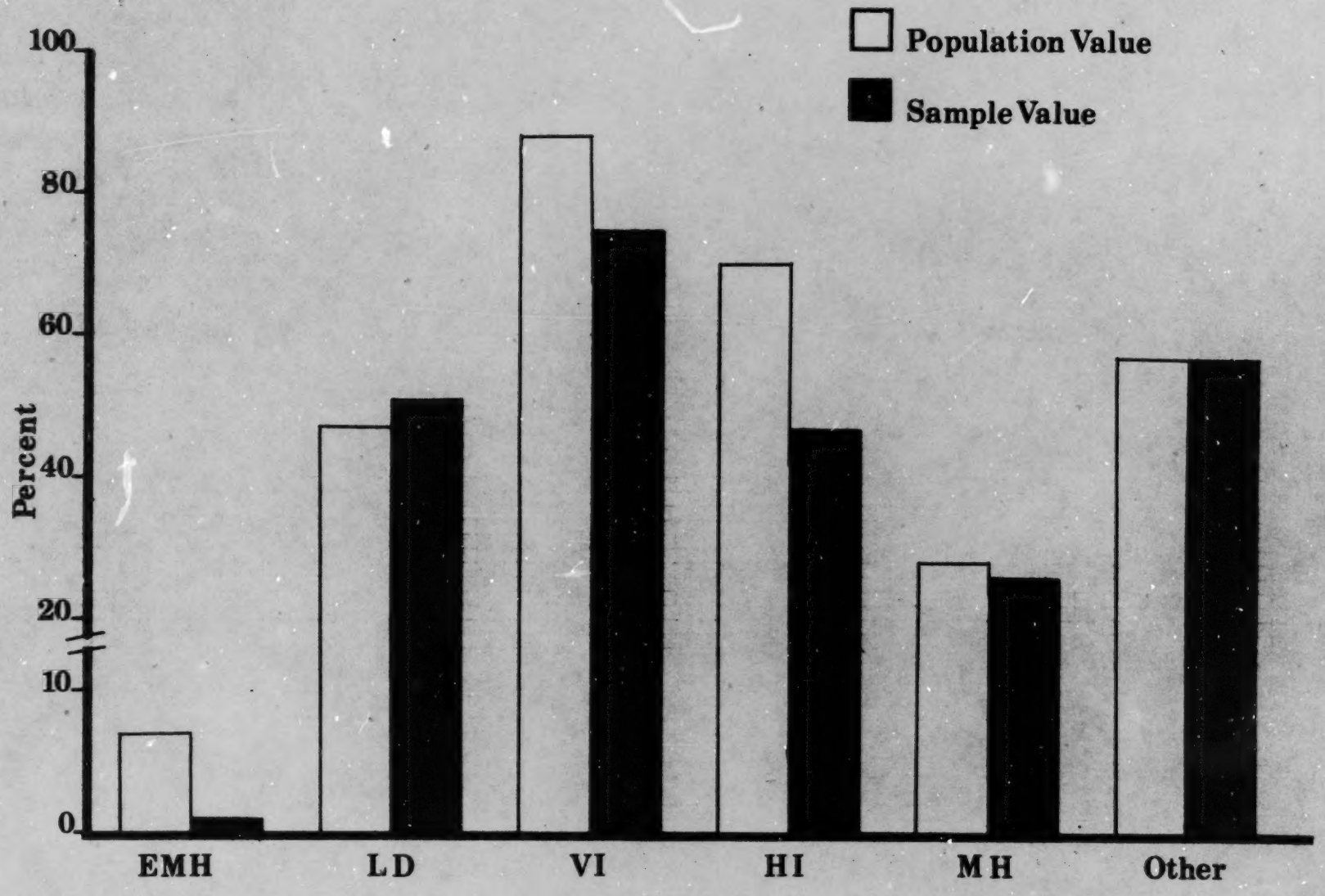

Figure 2. Percent correct classified students passing math test compared to original percent reported for the State in Fall 1978.

The results of misclassification on the LD sample were not as apparent as those for the EMH sample. When the data for the Reading and Math tests were analyzed separately, no significant change in passage rate was found (see Table B.5). In fact, there were slight increases in performance on each test due to the elimination of 17 retarded students. However, when passing both tests was used as the criterion for performance, the overall passage rate for the LD sample decreased slightly from 48% to 46%. Nevertheless, evidence suggests that misclassification and/or attrition had little effect on the passage rate of LD students.

Figures 1 and 2 illustrate the effects of misclassification and attrition on other types of handicaps in the study sample. In general, passage rates were lowered in all categories except the one labeled as "other" on Competency Test data files. Reduction in the percentage passing was most evident for the hearing impaired, although the reduction for the sample as a whole was quite significant. Table 3 shows that across all four categories of handicap 87% of misclassified students passed the Reading test while 78% passed the Math test. Overall reduction in passage rate was from 66% to 59% in Reading and from 59% to 53% on Math.

Context Variation. Of the 133 LEAs sampled, 104 (78%) did not return some surveys. As with attrition, there was substantial variation among educational districts in the State in the rate of misclassification (see Table 4). Misclassification and attrition in the EMH sample ranged from 22% in the Southwest region to 42% in the Southeast. The range for the LD sample was 19% in the Western region to 70% in the Southeast; that for other handicaps was 8% in the Western region to 51%

Table 4

Number Sampled and Percentage Correctly Classified by Educational District

	EMH		LD		Other	
	n	%	n	%	n	%
Northeast	24	63	20	65	55	62
Southeast	38	58	10	30	25	56
Central	42	69	37	67	88	82
South Central	27	74	28	53	61	64
North Central	56	66	14	57	114	77
Southwest	27	78	51	76	78	79
Northwest	17	71	14	57	136	49
Western	23	57	16	81	39	92

in the Northwest. Overall, the poorest response to the study survey was from LEAs in the Southeast region of the State.

The largest percentage of misclassification was found in the South Central region (31%); followed closely by that in the Northeast (28%). The lowest percentages of misclassification were in the Northwest (5%) and Central (9%) regions. The remaining regions varied from 11% to 18%.

Neither misclassification nor attrition overall was associated with type of school personnel who administered the Test. Perhaps more important for the analysis which follows, neither misclassification nor attrition was related to the use of test modifications.

Conclusion. The frequency of misclassification in samples of handicapped students seriously questions both the accuracy of the Fall 1978 test files and the adequacy of recording procedures followed for identifying student characteristics. The principal effect of misclassification was to reduce the percentage of students who passed the Competency Test in all major categories of handicaps except specific learning disabilities. Thus, handicapped students as a group seem to have fared less well on the Fall 1978 test than was reported originally. Nevertheless, the final sample of available students seems to be adequate for the purposes of this research, if not improved through the elimination of questionably classified students.

Variation in Test administration

In general, there was a great deal of variability associated with conditions of test administration to handicapped students and with the use of various test modifications.

Context Variation. Educational districts across the State differed considerably in the personnel used to administer the Competency Test.

For example, reference to Table 6 in Appendix B shows that the range in percentage of EMH students tested by classroom teachers was from 13% in the North Central district to 43% in the Northeast, while that for those tested by special class teachers was from 33% in the Northwest district to 83% in the Central district. Tables 7 and 8 in Appendix B also show large variations among districts in personnel used to test LD and all other categories of handicap.

Classroom teachers administered 43% of the tests overall, and special education teachers administered 35%; however, 21 different types of school personnel administered some tests. The major categories in addition to classroom teacher and special educator were other resource staff (e.g. counselor, reading teacher, psychologist) and administrative staff (e.g. principal, special education director, curriculum coordinator). Table 5 shows the relationship between type of test administrator and type of handicap. Although special education teachers gave the majority of tests to EMH (67%), LD (51%), and students with multiple handicaps (46%), classroom teachers also tested LD students frequently (43%). The majority (65%) of visually impaired students were tested by classroom teachers; however, other resource staff tested these students frequently (28%) as well as those with multiple handicaps (31%). Administrative staff as a group were most likely to test hearing impaired students (53%).

Use of Test Modifications. The frequency of use of test modifications is displayed in Table 6 for each handicap. Overall, approximately one half of the students received some form of test modification. The frequency of usage was greatest for the multiply handicapped (82%) and least for the group classified as "other handicap" (27%).

Table 5

Test Administrator by Type of Handicap

Group		Classroom Teacher	Special Educator	Resource Specialist	Administrative Staff
EMH	n	42	112	13	1
	%	25.00	66.67	7.74	0.60
LD	n	51	61	5	2
	%	42.86	51.26	4.20	1.68
VI	n	52	6	23	1
	%	63.41	7.32	28.05	1.22
HI	n	30	2	14	51
	%	30.93	2.06	14.43	52.58
MH	n	12	31	21	3
	%	17.91	46.27	31.35	4.48
Other	n	114	32	14	4
	%	69.51	19.51	8.53	2.44

Note: Special Educator - special class teacher (EMH, LD, ED, etc)

Resource Specialist - speech/hearing, counselor, psychologists, remedial reading, etc.

Administrative Staff - principal, special education director, test coordinator, curriculum coordinator, etc.

Table 6

Use of Test Modifications by Type of Handicap

Group	Yes		No	
	n	%	n	%
EMH	102	61.45	64	38.55
LD	59	49.58	60	50.42
VI	37	44.58	46	55.42
HI	55	56.70	42	43.30
MH	53	81.54	12	18.46
Other	44	26.83	120	73.17
Total	350	50.43	344	49.67

The frequency of use of each type of modification is shown in Table B.9 (Appendix B). The most frequently used modifications were extended time/sessions (23%) and small group administration (24%). These types of modifications were more often used with EMH, LD and multiple handicaps. The audio cassette was third most popular (15%) and was used most extensively with EMH (25%) and LD (25%) students. Thirty-seven percent of the visually impaired were given the large print edition, and 53% of the hearing impaired were given the test in sign language.

Factors Associated with Use of Modifications. The likelihood that handicapped students received a modified test administration varied significantly across the eight educational districts in the State, and with the type of school personnel giving the test. For example, Table 7 shows that EMH students in the Northwest region were 2.3 times more likely to receive test modifications than those in Southeast region; however, LD students in the Northwest region were the least likely to receive test modifications. The greatest frequency of modified administration for LD students was in the Southwest and Southeast regions.

Across all handicaps, special educators were 7 to 17 times more likely to use test modifications than classroom teachers (see Table 8). Also, administration of tests by other types of resource personnel was associated with more frequent use of modifications. Since there was wide variability in type of test administrator across educational districts, regional variability in the use of test modifications can be associated with use of different types of personnel to test handicapped students in different districts.

Neither student sex nor race was related to the frequency of use

Table 7

Percentage of Students Receiving Test Modifications by Handicap and Educational District

	EMH	LD	Other
Northeast	53.33	30.77	14.71
Southeast	40.91	66.67	57.14
Central	48.28	50.00	50.70
South Central	65.00	53.85	33.33
North Central	71.43	14.29	39.08
Southwest	61.90	71.05	37.10
Northwest	91.67	12.50	83.58
Western	76.92	38.46	40.00
Total	61.68	49.58	46.21
$\underline{X}^2(7)$	14.01	17.82	59.46
$\underline{p}$	.05	.01	.001

Table 8

Percentage of Students Receiving Test Modifications by Type of Test Administrator

		EMH	LD	Other
Classroom Teacher	n	5	4	13
	%	11.90	7.84	6.28
Special Educator	n	88	50	69
	%	79.28	81.97	97.18
Other	n	9	4	106
	%	75.00	80.00	82.17
χ^2		59.55	62.98	297.14
p		.0001	.0001	.0001

of test modification for any handicapping condition. However, EMH students whose parents had graduated from high school were more likely to have test modifications than those whose parents had only a grade school education. Parent education level was not associated with the use of modifications with LD students and other handicaps. These results with respect to student characteristics are presented in Table B.10 of Appendix B.

When respondents were asked their professional opinion about the "appropriateness" of the test modifications used with each student they generally responded in the affirmative. However, considerable doubt was expressed about the modifications used with hearing impaired students (58%), and the appropriateness of modifications used with EMH students was questioned in 22% of the cases (see Table 9).

Factors Associated with Test Performance

The present section of the report contains findings with respect to passage rate. In this analysis information was available on demographic variables, descriptive characteristics of students, and the use of test modifications for all handicapping conditions. A more extensive analysis of student background and educational variables was performed on the EMH and LD samples. In each case only correctly classified students were included (see Table 1), and $\underline{X}^2$ (Chi square) tests were made of the association between each variable and the number of students who passed and failed each test (Reading and Math) for each sample.

Context Variation. The highest Reading test passage rate for EMH students sampled within a given educational district was 6 out of 12 (50%) in the Northwest region, and that for the Math test was 5 (42%) students in the same region. Similarly, the Northwest region had the

Table 9

Professional Opinion About Appropriate Use of Modifications

		Yes	No
EMH	n	96	27
	%	78.05	21.95
LD	n	66	7
	%	90.41	9.59
VI	n	38	0
	%	100.0	-
HI	n	27	37
	%	42.19	57.81
MH	n	38	10
	%	79.17	20.83
Other	n	51	9
	%	85.00	15.00

Note: % correctly classified students

highest passage rate for LD students sampled, 87% in Reading and 65% in Math. The Southeast region had the lowest passage rate on both tests for both EMH and LD students (see Table B.11 Appendix B). Frequency of test passage was not related to the type of personnel who administered the Competency Test to EMH and LD students, although special education teachers had lower passage rates on both tests than classroom teachers for students with all other handicaps (see Table B.12 Appendix B). This trend most probably reflects the tendency for special educators to test more severely handicapped students.

Use of Test Modifications. Table 10 shows that EMH students who received test modifications were more likely to pass compared to those not receiving modifications. Of those passing the Reading test, 30% had modifications,whereas 8% of those who passed did not. Twenty percent of EMH students who passed the Math test had modifications, whereas only 5% passed without modifications. The opposite trend was found for the hearing impaired. Of those who passed,81% did not receive test modifications in Reading and 76% did not in Math. The use of test modifications was not related to the performance of LD students, or to that of students labeled as other handicap.

In the previous section of the report it was noted that the most popular modifications used with EMH students were extended time/ sessions, small group administration, and the audio cassette edition. Unfortunately, the small number of EMH students who passed precluded an analysis of the effects of each type of modification. However, it may be concluded that the likelihood of passing for EMH students was quite small indeed unless some combination of these modifications was used.

Student Characteristics. The percentage of students who passed

Table 10

Percentage Passing on Fall 1978 by Use of Test Modifications

% Pass	Reading Mods				Math Mods			
	yes	no	$X^2(1)$	p	yes	no	$X^2(1)$	p
EMH	30.10	7.81	11.59	.0007	20.39	4.69	7.91	.004
LD	25.00	38.00	0.71	NS	45.76	56.67	1.41	NS
VI	81.08	86.67	0.47	NS	67.57	82.22	2.36	NS
HI	35.45	80.95	29.34	.0001	25.45	76.19	24.58	.0001
MH	22.64	36.36	0.91	NS	18.87	27.27	0.39	NS
Other	54.55	69.17	3.03	.08	52.27	59.17	0.62	NS

the Reading and Math tests by sex, race and parent education level can be found in Tables 11 and 12. In general, the frequency of passing was not related to sex of student. However, black students were more likely to fail than white students for all groups except the multiply handicapped. Race was not related to the performance of visually impaired students in the Reading test, but was a significant factor on the Math test.

As reported previously for the general population of eleventh grade students, greater parent education was associated with a higher frequency of passing on both Reading and Math. Interestingly, parent education was not related to reading performance by hearing and visually impaired students, but was associated with their math performance.

Student Background and Interests. The results of the analysis for the EMH and LD samples are given in Tables 14 through 18 of Appendix B. Approximately 93% of EMH students and 81% of LD students had received all of their schooling in North Carolina public schools; so this variable was not associated with passage rate on either test (see Table B.14). However, whether LD students were retained for one or more grades was a significant factor (see Table B.15). Of those who failed the Reading test, 55% had repeated a grade; of those who failed the Math test, 61% had repeated a grade. Grade retention was not related to the performance of EMH students on either test.

Another set of questions pertaining to student background asked whether students had a history of unexcused absenses from school; and if absences were excused, was there reason to believe they impaired performance. In general, absenteeism was not an important factor in the performance of either group. Nevertheless, there was a trend for

Table 11

Descriptive Characteristics of Students who Passed Reading Test

Group		EMH	LD	VI	HI	MH	Other
Sex	M %	23.00	61.86	80.43	50.00	31.03	68.00
	F %	20.29	63.64	88.89	48.65	21.62	62.50
	$\underline{X}^2$	.17	.09	1.08	.01	.75	.52
	p	NS	NS	NS	NS	NS	NS
Race	W %	31.25	59.74	86.79	57.58	24.39	75.25
	B %	17.80	34.15	78.57	32.26	26.09	50.82
	$\underline{X}^2$	7.43	7.97	.91	5.40	.65	10.12
	p	.05	.01	NS	.02	NS	.01
Parent Education							
	Elem %	10.53	35.71	50.00	41.67	-	42.86
	H.S. %	30.91	52.78	88.24	30.77	9.09	48.57
	H.S. Grad %	22.22	69.23	76.00	48.78	55.00	72.13
	Post H.S. %	66.67	80.77	94.74	65.22	--	77.50
	$\underline{X}^2(3)$	10.95	10.20	2.83	4.40	4.75	11.32
	p	.01	.01	.10	NS	.05	.01

Table 12

Descriptive Characteristics of Students who Passed Math Test

Group	EMH	LD	VI	HI	MH	Other
Sex M %	16.00	49.48	76.09	48.33	22.14	62.00
F %	13.00	59.09	75.00	45.95	16.22	50.00
$\underline{X}^2$	.28	.66	.01	.05	.64	2.29
p	NS	NS	NS	NS	NS	NS
Race W %	29.17	59.74	83.02	56.06	24.39	65.35
B %	8.47	34.15	60.71	29.03	8.70	44.26
$\underline{X}^2$	17.45	7.97	4.90	6.18	2.38	6.91
p	.001	.01	.05	.01	NS	.01
Parent Education						
Elem %	10.53	35.71	--	33.33	10.00	35.71
H.S. %	30.91	52.78	88.24	23.08	18.18	48.57
H.S. Grad %	22.22	69.23	68.00	46.34	45.00	62.30
Post H.S. %	66.67	80.77	94.74	69.57	-	70.00
$\underline{X}^2$	10.45	10.38	4.71	8.89	2.79	6.96
p	.01	.01	.05	.03	NS	.07

respondents to believe that a large number of excused absences did impair the Reading test performance of EMH students (see Tables B.16 and B.17).

In order to assess the role of student interests, we asked whether students participated in extracurricular activities such as school clubs and community groups, or whether they had special talents or interests such as music or sports. Although the factors were unrelated to the performance of LD students, respondents indicated that 54% of the EMH students who passed the Reading test and 64% of those passing the Math test had notable outside interests (see Table B.18).

Educational Factors. As expected, student ability level as indicated on Individual Education Plans (IEPs) for EMH and LD students was significantly related to the frequency of passing on both tests. Table 13 shows that only 3 EMH students with IQ levels below 50 passed either the Reading test or the Math test, whereas 31% of those with IQs above 75 passed the Reading test and 26% passed the Math test. Among LD students it was clear that the majority who passed had IQs above 85. Table 13 shows that 92% of LD students with IQs above 95 passed Reading and 68% passed Math.

Table 14 illustrates a similar set of relationships between passage rate and grade level performance in reading and math as indicated on student IEPs. Relatively few EMH students (n=9) had performance levels above the sixth grade; however, they were more likely to pass both tests compared to their peers who were functioning at the elementary grade level. Similarly, the majority of LD students (51%) who passed the Reading test had reading performance levels above the sixth grade. The relationship between math performance level and frequency of passing Math was not as dramatic for LD students as it

Table 13

Percentage Passing by Ability Level

IQ Level		EMH		LD	
		Reading	Math	Reading	Math
< 50	n	3	3	-	-
	%	9.38	9.38	-	-
50 - 60	n	0	0	-	-
	%	-	-	-	-
61 - 73	n	16	8	-	-
	%	20.15	10.26	-	-
74 - 85	n	17	14	14	11
	%	31.48	25.93	40.00	31.43
86 - 95	n	-	-	25	24
	%	-	-	62.50	60.00
> 96	n	-	-	23	17
	%	-	-	92.00	68.00
	x^2	5.91	7.11	22.52	13.66
	p	.05	.01	.0001	.003

Table 14

Percentage Passing by Performance Level in Same Area Tested

Grade Level		EMH		LD	
		Reading	Math	Reading	Math
1-6	n	26	21	30	24
	%	18.31	14.69	44.12	37.50
7-8	n	7	1	13	11
	%	77.78	20.00	86.67	64.71
9-10	n	2	1	8	6
	%	100.00	100.00	100.00	85.71
11-12	n			10	2
	%			90.91	100.00
	X^2	19.87	NV	21.26	10.88
	p	.0001	-	.0001	.01

was for Reading. Although this relationship was significant, fewer (44%) LD students who passed Math had performance levels in math above the sixth grade.

In addition to ability and performance level, we asked whether EMH and LD students had been identified as being at risk for failure prior to taking the November 1978 Competency Test. Respondents indicated that 71% of LD students and 91% of EMH students were considered to be at risk. Of the EMH students who were classified at risk, 19% passed Reading and 13% passed Math. Of the LD students who were classified at risk, 55% passed Reading and 45% passed Math; however, of those not identified as being at risk, 79% passed Reading and 67% passed Math (see Table B.19 in Appendix B). Thus, the school's prediction about the performance of LD students was significantly associated with passage rate, but was far less accurate than that for EMH students. Collectively, the findings concerning risk of failure and grade level performance suggest that severity of specific learning disability is an important factor in predicting failure. However, the same factors appeared to be less important in the case of EMH students because they showed such a high rate of failure overall.

If students had been identified at risk for failure, we asked whether they had received special services to help them pass the Competency Test before the November 1978 administration. Respondents indicated that 128 (86%) EMH students and 62 (68%) LD students had such services. However, Table B.20 in Appendix B shows that both EMH and LD students who did not receive services were more likely to pass. Since this finding probably reflects the tendency to identify more severely handicapped students for such services, it should not be

concluded that services aimed at preventing failure were ineffective.

Finally, we asked when students had been identified as EMH and LD, and what type of educational placement had been provided in the tenth and eleventh grades. In most cases accurate records of previous special education services below the tenth grade were not available to our respondents. The relationship between passage rate and educational placement in the tenth and eleventh grades for each group is given in Table 21 in Appendix B. Although the cell frequencies involved in this data precluded Chi square analysis, the trends suggest that students who had more restrictive placements (i.e. received more special education) were more likely to fail. Thus, additional evidence was gathered which pointed to the importance of severity of handicap in accounting for the performance of EMH and LD students in the Fall 1978 Competency Test.

Factors Associated with Spring 1979 Test Performance

Table 15 shows the passage rates for handicapped students in the study sample who failed the Fall 1978 Competency Test and were retested in Spring 1979. Overall, 35% of the students passed the Spring Reading test and 28% passed the Spring Math test. The highest passage rate for those who were retested was for the visually impaired and the lowest was for EMH students. Slightly more than half of the LD students in the study sample passed both tests the second time they took them (53% in Reading and 52% in Math).

The analysis in the remainder of the report pertains to factors related to the Spring performance of EMH and LD students. In most instances the reduced sample size for Spring 1978 data precluded meaningful statistical analysis. Therefore, information collected has been

Table 15

Percentage of Students Passing Spring 1979 Test by Handicap

Group		Reading				Math			
		Fail Fall	Lost	Pass	Fail	Fail Fall	Lost	Pass	Fail
EMH	n	109	23	23	86	116	28	15	101
	%			21.10	78.90			12.93	87.07
LD	n	38	7	20	18	33	25	17	16
	%			52.63	47.37			51.52	48.48
VI	n	11	2	8	3	17	3	11	6
	%			72.72	27.27			64.70	35.29
HI	n	36	12	10	27	39	12	8	31
	%			27.02	72.97			20.51	79.48
MH	n	37	12	11	26	40	13	6	34
	%			29.73	70.27			15.00	85.00
Other	n	40	17	22	18	51	19	26	25
	%			55.00	45.00			50.98	49.02
Total	n	271	73	94	178	296	100	83	213
	%			34.68	66.05			28.04	71.95

Note: Lost means student failed but was not retested.

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summarized for descriptive purposes in Tables 22 - 32 of Appendix B.

Sources of Attrition. Table 15 shows that a number of EMH and LD students who failed in the Fall were not retested in the Spring. Data on the reasons for this attrition were obtained for 26 EMH students and 16 LD students. In the case of EMH students, four (15%) moved out of the State, five (19%) were exempted from the Spring Test, 13 (50%) dropped out of school, and four (15%) were absent from the testing. Among LD students who were lost, three (19%) were exempted, 10 (66%) dropped out of school, two (13%) were absent, and one (6%) graduated. Thus, among those who were sampled, the most frequent reason for not taking the Spring test was leaving school.

Changes in Test Modification. Table B.22 in Appendix B shows that different test modifications were not used with the majority (76%) of handicapped students when they were retested in the Spring. In the case of EMH students, 32 (29%) had different modifications on Spring Reading and 3 (9%) passed; 34 had different modifications on Spring Math and 3 (6%) passed. Among LD students, 8 (22%) received different modifications on Reading and 5 (62%) passed; 8 (18%) received different modifications on Math and 4 (50%) passed. Thus, while changes in test modifications seemed to benefit some students who had failed in the Fall, the trend in these data suggests that changes in modifications were not associated with an increased likelihood of passing for either EMH or LD students (see Table B.23 Appendix B).

With respect to specific changes, the most frequent for EMH students were that 10 (62%) received the audio cassette and 5 (71%) had the large print edition for the first time in the Spring (see Tables B.24 and B.25 Appendix B). The most frequent changes for LD students were in

in the use of small groups for 4 (80%) students and the audio cassette for 6 (66%) students when these modifications had not been employed in the Fall.

Student Characteristics. Interestingly, characteristics which were strongly associated with initial Competency Test performance were less important in the analysis of Spring passage rates. For example, although student race was an important factor in Fall performance, it was not significantly associated with Spring performance. In fact, a slightly higher percentage of Black students passed the Spring Reading test than White students in both EMH and LD samples (see Table B.26 Appendix B). Similarly, the relationship between sex and parent education to Spring passage was not remarkable. Also, Tables B.27 and B.28 suggest that student ability level and grade level performance in reading and math were not as important in predicting Spring passage rates as they were in the Fall. However, with the exception of the absence of racial effects in Spring performance, caution should be exercised in interpreting the data on other student characteristics because of the small number of cases involved.

Change in Educational Program. One of the principal consequences of failing the Fall 1978 Competency Test for EMH and LD students was changes in their educational programs. The majority of EMH (85%) students and LD (77%) students who failed experienced some change in program. Following failure on the Reading test, 39 (43%) of EMH students received a remedial program designed specifically for the Competency Test, and 41 (42%) received the same type of program following failure in the Math test. Special Competency Test remediation was provided to 16 (59%) LD students who failed Reading and to 14 (63%) who

failed Math.

Other changes have been described in Tables B.29 and B.30 of Appendix B. The most common mechanism for providing remediation to LD students was to incorporate it into the special education program. Seventeen (63%) who failed Reading and 15 (68%) who failed Math received this option. The special education option was exercised less often with EMH students who failed Reading (21/23%), but was used extensively for those who failed Math (76/77%). A change was made in educational placement for 22 (25%) EMH and 11 (41%) LD students following failure on Reading, and for 24 (25%) EMH and 9 (41%) LD students following failure on Math. The Individual Education Plan (IEP) was changed for 31 (35%) EMH and 13 (48%) LD students who failed Reading, and for 55 (57%) EMH and 12 (55%) LD students who failed Math.

In sum, the trends suggest a tendency either to intensify the student's special education program following failure or to use programs developed more specifically for remediation of skills measured by the Competency Test. Unfortunately, it was not clear how much overlap existed in these two basic strategies. However, the former often involved a change in educational placement with related changes in the IEP. In about one half of the cases such changes in special education services involved placement in a more restrictive setting and/or more time working with special education personnel. Table B.31 shows that the Reading test passage rate for EMH (24%) who had program changes was somewhat greater than that for those who did not have changes (11%). However, Reading test passage rate for LD students who had changes (55%) was approximately the same as for those who did not have changes (50%). The impact of program changes on Math performance

was considerably less for both groups. Unfortunately, given the limitations of the present study with respect to a) reduced sample size, and b) lack of certain knowledge about the exact nature of remediation in each case, it was impossible to draw a conclusion with respect to the benefits of educational changes following Fall failure. However, it is possible to conclude that substantial and varied changes did occur, and that for most EMH and LD students they involved a more intensified special education program.

Summary Site Visit Results

A total of 50 professionals were interviewed in 15 high schools across the State. Opinions about Competency Testing of handicapped students were sought from school administrators, counselors and special educators. These results have been presented in some detail in Appendix C of the report; however, the major findings were summarized below.

In general, school personnel accepted the concept of competency testing for handicapped students but were divided on the issue of whether they should be required to take the test in the same manner as other students. Some felt that the goal of setting standards for basic skills attainment in order to receive a diploma required that all students be treated alike. Others favored a modified test or no competency test for either some or all exceptional students. School administrators and personnel who administered the tests were more likely to express the former opinion, while teachers more often expressed the latter opinion. Many of the comments on this issue reflected the belief that the test was damaging psychologically to some handicapped students, and/or that it was breach of faith to change the requirements for a diploma as late as the eleventh grade.

All respondents felt that exceptional students should participate in graduation exercises whether they passed the Competency Test or not, and they also agreed that most exceptional students felt that it was important for them to have a high school diploma.

Many respondents felt that the Competency Test did not measure the skills of exceptional students accurately. Although few disagreed with the use of competency testing to encourage the teaching of basic skills, many were concerned over a potential conflict between what the Competency Test measures (i.e. content) and what the schools should emphasize in preparing handicapped students for adult life. Basically, these comments seemed to reflect concerns regarding the goals of regular education on one hand, and those of special education on the other.

It was generally felt that at least some exceptional students, particularly EMH students, found the test extremely frustrating. This opinion was combined with the belief that many students held to the hope of passing. With respect to parent attitude, most respondents were unaware of any parental reaction, positive or negative, and left the general impression that parent involvement in the Competency Test Program was low.

Most of those interviewed felt that test modifications had been appropriately matched to students; however, a great deal of concern was expressed about the use of the audio cassette. Concerns about the audio cassette reflected a number of specific problems with its use as well as its appropriateness for many students. In many cases, it was felt that the cassette was more confusing to the student than helpful. Respondents were divided on the adequacy of training for test administrators, but felt that insufficient attention had been given to specific

training in the use of modification options. However, many commented that test procedures had been improved since the Fall 1978 administration.

Conclusions

The findings of the present study have illustrated a number of specific issues related to the competency testing of handicapped students including: 1) the classification of handicapping conditions for the purposes of competency testing, 2) the provision of fair and appropriate conditions of test administration, 3) the correlates of successful and unsuccessful performance, and 4) the provision of appropriate remediation. In each instance, further study and action by the Competency Test Commission and State Department of Public Instruction is required to better achieve the aims of the Competency Test Program in North Carolina as they pertain to handicapped students.

First, it was apparent that procedures used to classify students as handicapped by local schools and to establish eligibility for modified test administration were inadequate for the 1978 Fall Competency Test. The major consequence of error in classification was to decrease the actual passage rates for most categories of handicapping conditions. Although we were unable to specify the causes of misclassification in individual cases, several possible sources of error can be identified and corrected in future tests. In addition to the problem of clerical errors in the management of test data, the following may have contributed to misclassification: a) changes in student status as a result of the implementation of P.L. 94-142, b) a lack of knowledge regarding State definition of various types of handicaps by persons responsible for

testing, and/or c) the phenomenon of "informal diagnosis" resulting from a professional opinion about a student formed without the benefit of formal diagnosis. Thus, additional safeguards are required to insure valid administration of the test and protect non-handicapped students from erroneous classification for other educational purposes.

Second, the findings with respect to variation in the conditions of test administration to handicapped students suggested great latitude in who administers the test to handicapped students across the State, and this in turn was related to the use of modifications and/or the choice of particular modifications. Given extreme variability in use of particular modifications, it was impossible to determine exactly how modified test administration influenced passage rates except in the case of EMH students, where the majority of tests were given by special educators who used a small range of modifications. Collectively, these findings suggest that better guidelines for the use of modifications are required which would clearly justify their use in individual cases based on the student's specific handicap and the relative effectiveness of available options.

Third, this study illustrates the importance of a number of student characteristics that were related to successful performance on the 1978 Fall Competency Test, specifically: ability level, current performance level in reading and math, race and parent education. Collectively, these factors seem to combine to establish a student as "at risk" for Competency Test failure. Although these findings are not surprising, they do indicate that the schools have sufficient information to identify students who are at risk for failure, advise parents about the factors that might influence their decision to request

exemption for their child, and plan remediation to better prepare students who have a reasonable chance for success. The principal mechanism for accomplishing these goals seems to be embodied in the student's Individual Education Plan as established under the provisions of P.L. 94-142.

Fourth, it would be incorrect to conclude that changes made in educational programs for students who failed the Fall 1978 Test were not effective. However, it was the case that there was great variability among schools in their attempts to provide remediation to handicapped students who failed; and it was unclear whether such remediation should be provided as part of the student's program of special education, or as part of the more general Competency Test remediation program. Although these findings yield little useful information about the effectiveness of various remedial strategies, they do suggest that local school personnel need more guidance and technical assistance in developing remedial programs and in incorporating Competency Test remediation into the student's larger program of special education.

Finally, perhaps the most fundamental issue involved in the competency testing of handicapped students is whether they should be tested at all. Obviously, the answer to this question is determined in part by one's values and educational philosophy. Of course the data collected in the present study does not resolve the deep and complex philosophical and legal problems associated with this issue, but they are helpful in a number of specific and relevant ways when the question is redefined into operational terms. Specifically, the question might be stated as - What can be expected of handicapped students when the present standard is applied?

The results of this study indicated that the answer to this question in the Fall of 1978 depended primarily on the nature and severity of the handicapping condition. With the exception of EMH and multiply handicapped students, we found that most of the handicapped students who were sampled had a better than even chance of passing the Competency Test the first time it was administered. Similarily, the passage rate on the Spring test for those who failed the Fall 1978 Test was most encouraging. Therefore, although the likelihood of passing varied with factors such as race, parent education and severity of handicap, the results overall would not justify a blanket policy of excluding handicapped students from the Competency Test Program.

Nevertheless, the problem remains to devise a solution for those who have little hope for success even under the best of circumstances. This problem was illustrated most clearly in the performance of EMH students. Although the use of test modifications was beneficial to this group, overall passage rate was still low and significantly related to severity of handicap. It should be noted that only three EMH students with IQ levels below 50 passed. Of those who passed, 56% had IQ levels above 75 according to school records. Although we eliminated students from the EMH sample who were not retarded by State definition, these findings suggest that the majority who passed were nevertheless functioning in the "borderline" range of mild mental retardation.

Thus, if a conservative definition of EMH were applied (i.e. two standard deviations below average or an IQ of 75), then the estimated likelihood of passing for this group would have been less than one in a thousand. Given this rate of failure, professional opinion regarding the high level of frustration and discouragement experienced by EMH students in

the Competency Test Program seems to be well founded. Although higher passage rates can be hoped for in the future with better special education planning and remediation, the prospect for most EMH students who are significantly retarded is not very promising.

In the next and final section of the report we will offer a number of recommendations for the various issues and problems discussed above.

Recommendations

In our view many of the issues involved in the competency testing of handicapped students, as well as many of the procedural problems encountered in the implementation of the Competency Test Program in North Carolina, can be resolved in a practical fashion without compromising either the goals of the program or the needs of handicapped students.

First, it is necessary to consider the relationship between the Competency Test Program and existing policies (both State and federal) regarding the education of the handicapped. In the introduction to this report we outlined a number of areas where the potential for conflict exists. However, problems we have identified through the present research on the North Carolina program do not seem to involve fundamental conflicts in educational policy. Rather they arise from the failure to integrate these separate policies at the local school level by incorporating the requirements and procedures of competency testing into the Individual Education Plans (IEPs) of handicapped students. Specifically, it is recommended that:

R.1.1. No student should be counted as handicapped for the purpose of competency testing who does not have an IEP

which fully documents the nature of the handicap and appropriate program of special education; and that,

R.1.2. All features and requirements related to the competency testing of handicapped students should be stated objectively in the student's IEP including a) any pretest remediation aimed at preparing the student for competency requirements, b) the rationale for and specific procedures to be used in test administration, and c) appropriate documentation of school based committee and parent involvement related to planning for competency testing; and that,

R.1.3 There be a mandatory IEP conference following a handicapped student's failure to pass the Competency Test for the purpose of updating the IEP and specifying an appropriate course of remediation.

We believe that if these recommendations were implemented, schools, parents and students involved in the Competency Test Program would be protected from potential conflicts arising from the due process provisions of P.L. 94-142 and companion State law concerning the education of the handicapped. Also, a number of problems encountered in the 1978-79 Competency Program would be avoided.

First, it would insure that students who received modified test administration were actually handicapped, and that adequate justification and planning had gone into the decision to use available test options. Second, it would facilitate the cooperation of regular and special educators in better meeting the needs of handicapped students, and would encourage better and more informed parent involvement in the

Competency Program. Third, since the planning process and needed documentation is already in place at the local school level, the use of IEPs for this purpose would avoid a needless duplication of effort and new (perhaps conflicting) guidelines for the administration of the Competency Test. Finally, it provides a systematic and orderly procedure for decision making in individual cases which considers both the best interests of the student and public demand for greater accountability in secondary education.

Our second recommendation pertains to the need for greater quality control and better educational planning in the implementation of the Competency Test Program. We found highly significant regional, and presumably local, variability in most aspects of the Program as it affects handicapped students. Also, site visit interviews supported the statistical portrait by suggesting that many professionals felt a lack of direction, and felt unqualified to deal with many of the issues presented by handicapped students. Although great variability in program implementation can be beneficial when local diversity is desirable in order to achieve local goals, this does not seem to be the case when the goal is to set a State standard for high school graduation. Accordingly, it is recommended that:

R.2.1. The Division of Research and Division of Exceptional Children of the State Department of Public Instruction plan and implement cooperatively a program of technical assistance aimed at enhancing local school expertise and experience in the competency testing of handicapped students; and that,

R.2.2. Such a program should include, as a minimum, training

in the following - a) planning appropriate conditions of test administration and choosing test modification options, b) providing alternative personnel to test handicapped students, c) methods of consultation for advising parents, d) procedures for identifying students at-risk for failure, and e) choosing appropriate and effective remediation strategies related to competency test content and objectives.

Although it is recognized that such a technical assistance program would be expensive and time consuming, the State has already made a commitment to assist local schools by providing funds for training and remedial programs. This recommendation should be viewed as call for greater centralization of existing efforts, and as a related effort for the handicapped, as opposed to a call for an entirely new program of assistance. Also, it is recognized that some change in this area has been made; however, the recommendation is based on the assumption that a systematic outreach program is required, and that it should have a central, rather than local focus.

The third set of recommendations concern what additional information is required to further the goals of the Competency Program for handicapped students. There are many areas of needed research concerning the impact of competency testing, both within the State and across the nation. However, one of the most pressing issues that could be resolved in the near future is the appropriate use of test modifications, particularly the audio cassette. Also, much could be learned from the ongoing testing program itself, provided that better and more extensive records were kept.

R.3.1 Experimental studies should be undertaken in controlled circumstances to establish the efficacy of audio cassette administration. These studies should consider the nature of specific handicaps as well as task variables during administration (e.g. speed of administration, length of session, etc.).

R.3.2 More extensive analysis of diagnostic data (e.g. actual IQ scores, performance levels, educational history, etc.) should be carried out to determine what factors place students at-risk for failure early in their educational careers and are useful in planning preventive programs.

R.3.3. The "other handicapped" category on State records should be changed to reflect the actual handicapping condition (e.g. cerebal palsey, emotional disturbance, physically handicapped, etc.), since at present there are no usable data on the performance of these students who vary greatly with respect to need, program, and chance of success on the Competency Test.

Our final recommendations were inspired by the problem of handicapped students who have little hope of meeting the Competency Test requirement for a high school diploma. Although the number of such students promises to be very great, it is generally recognized in the field of special education that many EMH and multiply handicapped persons can function independently in life, hold down a job, and make a responsible contribution to their community. In the interest of fairness to these citizens and in the interest of maintaining standards in

special education, as well as regular education, we reccomend that:

R.4.1. The State of North Carolina should recognize and foster the achievements of retarded high school students (and those with handicaps of like severity) by a) setting minimum standards for competence as the result of completing an approved program of secondary special education, and b) awarding a special education diploma based on the demonstrated attainment of minimum competence at this level; and that,

R.4.2. The Competency Test Commission should establish an advisory board of qualified individuals who would a) study the feasability of this option, and b) formulate recommendations for needed legislation and/or other means to provide educational credit for this segment of our population.

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APPENDIX A

INSTRUMENTS

Competency Test Evaluation of Exceptional Children

P.O. Box 26
Carrboro, North Carolina 27510

Telephone: 919/966-4121, Ext. 214

Dear Superintendent, Special Services Coordinator, Principal and Special Education Teacher:

An evaluation of the performance of exceptional children on the November 1978 State Competency Test is being conducted by the University of North Carolina under the authorization of the State Board of Education and the Competency Test Commission.

The purpose of the project is to gather information regarding the characteristics of students and nature of services in order to identify those factors which contribute to a student's success or failure on the Competency Test. Hopefully, the responses your school system provides to the survey questions will be instrumental in improving present programs if necessary, and influencing State Competency Test policies.

Broad research questions on the survey include:

A. What are the variations in demographic characteristics of exceptional students who pass and fail the Competency Tests?

B. Were test modifications employed and, if so, were they appropriate for the student?

C. Were there significant variations in amount and content of services provided to exceptional students who passed and who failed the Test in 1978?

D. What special remediation efforts were used for those students who failed the Test in 1978?

E. What are the attitudes of teachers and administrators toward Competency Testing of exceptional students? (Interviews to be conducted during visits to selected schools.)

The State Attorney General's office has reviewed and approved the instrument directing attention to the Family Rights and Privacy Act. To follow is an excerpt from a letter from the Department of Justice, Mr. Edmiston's office, dated November 6, 1979, regarding the Competency Test Evaluation Project:

> It is my opinion that it would be permissible to allow access to students' records without parental release forms because the information is being gathered on behalf of the State Board for the purpose of assisting the Board in improving the predictiveness of competency tests, which in turn hopefully will improve the instruction received by exceptional children; and, because the information collected will be aggregated only, and no individual data will be reported.
>
> The Family Rights and Privacy Act (20 USCA Sec. 1232g) deals generally with the availability and inspection and review of education records of students in attendance at an institution which receives Federal funding.

The Act generally restricts the availability of student information unless, where dealing with a minor, the parents give their consent to access to this information, or where the student is an adult, without first securing permission from the adult student. An exception to the requirement of first gaining the parents or individual student's permission before access to student records is permitted, is where an organization is conducting a study on behalf of an educational agency "for the purpose of developing, validating, or administering predicative tests, administrating student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations..."
20 USCA Sec. 1232g (b)(1)(F).

Because of the nature of the study and the exception made to access to student records without parental permission, it appears that the data collection plan prepared by the State Board is adequate and that the study may be conducted by the University of North Carolina without first securing permission from parents of the students involved.

Further, because the project has been funded by the State Board of Education and approved by the Competency Test Commission, Dr. William J. Brown, Director of the Research Division, State Department of Public Instruction, has been designated as the contact person to the local education agencies involved, if you have questions regarding the importance of the study.

We have attempted to ask questions requiring brief responses that are easily accessible from the student's Individualized Education Plan (IEP), Special Services Folder, and cumulative folder. However, we realize that some information may not be available, but the more complete the responses we receive the better we can view factors contributing to a student's success or failure on the Competency Test.

In addition to requesting brief responses, we have sampled exceptional students classified as LD and EMR in your system so as not to overburden your staff with completing surveys on each exceptional eleventh-grader who took the Test in November 1978.

Pilot work has been carried out in four high schools in three counties with suggestions incorporated into the final instrument.

Enclosed are the survey forms each including this letter of introduction and explanation and a "Directions" section for the respondent. Also, we have provided you with a return mailing envelope for your convenience. (Please note that we would appreciate your mailing the completed surveys to us by December 20, 1979.)

Please contact Kathan Haskins, (919) 966-4121 (ext. 214), Ella Akin (ext. 280), or Julia Hall (ext. 276), if you have questions regarding completing the survey.

Thank you for your cooperation and effort.

James D. McKinney

James D. McKinney, Ph.D.
Project Director

Kathan G. Haskins

Kathan G. Haskins (Mrs.), M.Ed.
Research Associate

KGH:jtl

Enclosures: (3) Directions sheet
Student information sheet
Survey

GENERAL INSTRUCTIONS

THE STUDENT'S NAME, PERSONAL INFORMATION AND FALL 1978 COMPETENCY TEST SCORES ARE ON THE FOLLOWING PAGE. FOR CONFIDENTIALITY, PLEASE MARK THROUGH THE STUDENT'S NAME AFTER COMPLETING THE SURVEY. WE HAVE ATTEMPTED TO REQUEST INFORMATION WHICH IS EASILY ACCESSIBLE FROM YOUR FILES. HOWEVER, WE REALIZE THAT SOME RECORDS MAY BE INCOMPLETE. WE HAVE AN I.D. NUMBER AND SCHOOL NAME FOR ALL STUDENTS. AFTER COMPLETING THE SURVEYS, PLEASE RETURN THE STUDENT INFORMATION SHEET AND THE ATTACHED SURVEY TO US IN THE MAILING ENVELOPE PROVIDED. THE SURVEYS SHOULD BE MAILED BY DECEMBER 20, 1979, PROVIDING TWO WEEKS FOR YOU TO COMPLETE. THANK YOU!

If you have any questions about the survey, please contact:

Kathan Haskins (ext. 214), Ella Akin (ext. 280), Bruce Dorval (ext. 273), or Julia Hall (ext. 276) -- (919) 966-4121.

ID NUMBER: 1001

LEA: BEAUFORT

SCHOOL: AURORA HIGH D

LEA/SCHOOL CODE: 070304

STUDENT NAME: Actual name will be listed for final distribution.

SEX: FEMALE

RACE: BLACK

AGE(BASED ON 1979): 17

PARENTAL EDUCATION: LESS THAN EIGHT GRADE

HANDICAP: HEARING IMPAIRED

FALL READING SCORE(1978 COMPETENCY): 103

SPRING READING SCORE(1979 COMPETENCY): _____

FALL MATHEMATICS SCORE(1978 COMPETENCY): 88

SPRING MATHEMATICS SCORE(1979 COMPETENCY): _____

Respondent's Name_____

School Position_____

PLEASE DO NOT WRITE IN THIS SPACE

COMPETENCY TEST EVALUATION OF EXCEPTIONAL CHILDREN

Modifications

1. Who administered the Fall 1978 Competency Test? (Please check)

CID ____ ____ ____ __ (1 - 4)

_____ regular classroom teacher

_____ special education teacher

_____ other (please specify) _____

ADM ____ ____ (5 - 6)

2. A. Did the student take the Competency Test through a modified test administration?

_____ yes

_____ no

MODF (7) ____

B. If yes, please indicate which modification was used. Please note: more than one of the modifications may have been used so please indicate all of them.

_____ large print edition — MODF1 (8) ____

_____ audio-cassette edition — MODF2 (9) ____

_____ Braille edition — MODF3 (10) ____

_____ answers recorded by proctor — MODF4 (11) ____

_____ extended time test; number of sessions _____ — MODF5 (12) ____

_____ small group setting — MODF6 (13) ____

_____ instructions given in sign language — MODF7 (14) ____

_____ student marks responses in test booklet — MODF8 (15) ____

_____ administered to hospital or homebound student — MODF9 (16) ____

_____ other — MODF10(17) ____

C. If the student failed the Fall 1978 Competency Test, were different modifications used for the Spring 1979 test?

_____ yes

_____ no

MODS (18) ____

Respondent's Name _____

School Position _____

PLEASE DO NOT WRITE IN THIS SPACE.

Page 2

D. If yes (see Question C), please indicate modification(s) used on the Spring 1979 test

_____ large print edition	MODS1 (19)	____
_____ audio-cassette edition	MODS2 (20)	____
_____ Braille edition	MODS3 (21)	____
_____ answers recorded by proctor	MODS4 (22)	____
_____ extended time test; number of sessions _____	MODS5 (23)	____
_____ small group setting	MODS6 (24)	____
_____ instructions given in sign language	MODS7 (25)	____
_____ student marks responses in test booklet	MODS8 (26)	____
_____ administered to hospital or homebound student	MODS9 (27)	____
_____ other	MODS10 (28)	____

3. A. Based on the nature and severity of this child's disability, in your professional opinion, was the modification(s) used with this student appropriate for his/her disability?

_____ yes

_____ no — APMOD (29) ____

B. If no, what type of modification(s) do you think would have been more appropriate? Please specify: _____

_____ NWMODS (30-31)____ ____

(32-33)____ ____

(34-35)____ ____

(36-37)____ ____

4. Please offer any additional comments regarding modifications used in Competency Testing of exceptional students. BLANK (38-43)

COMS (44-45)____ ____

(46-47)____ ____

School Position_____

Page 3

History of Special Education Services

5. How many years has the student attended North Carolina schools?

_____ number of years

_____ don't know

6. To your knowledge or from cumulative folder information, has this student ever repeated a grade?

_____ yes

_____ no

_____ don't know

If yes, please circle grade(s):

1 2 3 4 5 6 7 8 9 10 11

7. Does this student have a record of "unexcused" absences?

_____ yes

_____ no

_____ don't know

If yes, please circle grade(s):

1 2 3 4 5 6 7 8 9 10 11

8. If absences were "excused," is there reason for you to believe the student's performance has been impaired by "excused" absences for reasons of health, travel, etc.?

_____ yes

_____ no

_____ don't know

If yes, please circle grade(s):

1 2 3 4 5 6 7 8 9 10 11

PLEASE DO NOT WRITE IN THIS SPACE.

YSCM (48-49)____ ____

GREP (50) ____
GREP1 (51) ____
GREP2 (52) ____
GREP3 (53) ____
GREP4 (54) ____
GREP5 (55) ____
GREP6 (56) ____
GREP7 (57) ____
GREP8 (58) ____
GREP9 (59) ____
GREP10 (60) ____
GREP11 (61) ____

UABS (62) ____
UABS1 (63) ____
UABS2 (64) ____
UABS3 (65) ____
UABS4 (66) ____
UABS5 (67) ____
UABS6 (68) ____
UABS7 (69) ____
UABS8 (70) ____
UABS9 (71) ____
UABS10 (72) ____
UABS11 (73) ____

RID (79-80) 0 3

****

CID ____ ____ ____ ____
(1 - 4)

EABS (5) ____
EABS1 (6) ____
EABS2 (7) ____
EABS3 (8) ____
EABS4 (9) ____
EABS5 (10) ____
EABS6 (11) ____
EABS7 (12) ____
EABS8 (13) ____
EABS9 (14) ____
EABS10 (15) ____
EABS11 (16) ____

School Position_____

PLEASE DO NOT WRITE IN THIS SPACE.

Page 4

9. Was the student identified prior to November 1978 as being a high risk for failing the November 1978 Competency Test?

_____ yes

_____ no

_____ don't know

RISK (17) ____

10. If yes, were special services provided in the Summer and/or Fall 1979 toward helping the student to pass the Competency Test in November?

_____ yes

_____ no

_____ don't know

RISKV (18) ____

11. In what grades did the student receive special education services prior to the 10th grade? Please circle.

1 2 3 4 5 6 7 8 9

SPEDG1 (19) ____
SPEDG2 (20) ____
SPEDG3 (21) ____
SPEDG4 (22) ____
SPEDG5 (23) ____
SPEDG6 (24) ____
SPEDG7 (25) ____
SPEDG8 (26) ____
SPEDG9 (27) ____

12. Please check special service(s) the student received in the 10th and 11th grades:

Type of Special Education Service

	1. Regular Classroom--Mainstreaming (No Special Modifications)	2. Regular Classroom w/ Supportive Services (Instructional Modifications as Indicated by IEP)	3. Part-Time Special Education Class (Resource Room)	4. Full-Time Special Education Class	5. Special Day School	6. Hospital-Home Services	7. Residential Center	8. Don't Know
10th Grade 77-78								
11th Grade 78-79								

SPEDT1 (28) ____
SPEDT2 (29) ____
SPEDT3 (30) ____
SPEDT4 (31) ____
SPEDT5 (32) ____
SPEDT6 (33) ____
SPEDT7 (34) ____
SPEDT8 (35) ____

SPEDE1 (36) ____
SPEDE2 (37) ____
SPEDE3 (38) ____
SPEDE4 (39) ____
SPEDE5 (40) ____
SPEDE6 (41) ____
SPEDE7 (42) ____
SPEDE8 (43) ____

School Position_____

PLEASE DO NOT WRITE IN THIS SPACE.

Page 5

13. Please check the student's ability level based on the most recent intelligence test scores:

_____ 110 +

_____ 96 - 109

_____ 86 - 95

_____ 74 - 85

_____ 61 - 73

_____ 50 - 60

ABLEV (44) ____

Please specify test administered and date given:

_____Test

TEST (45) ____

_____Date

DATE ____ ____ ____ (46 - 49)

14. Please circle the student's grade-level performance as documented on his IEP and/or by standardized test scores at the time he took the November 1978 Competency Test:

Reading: 1 2 3 4 5 6 7 8 9 10 11 12

READLV ____ ____ (50 - 51)

Math: 1 2 3 4 5 6 7 8 9 10 11 12

MATHLV ____ ____ (52 - 53)

Please specify test administered and date given:

_____Test

TEST2 (54) ____

_____Date

DATE2____ ____ ____ (55 - 58)

15. Please check the correct statement.
Based on your professional opinion regarding this student's competencies (observation, classroom performance, prior test scores, etc.):

_____ This student passed the Competency Test as expected.

_____ This student passed, but should have failed.

_____ This student failed as expected.

_____ This student failed, but should have passed.

COMPO (59) ___

School Position____

Page 6

16. Does this student participate in extra-curricular activities or have special talents or interests?

_____ yes

_____ no

_____ don't know

If yes, please check:

_____ school clubs

_____ church or community groups

_____ talents (dancing, music, mechanics, sports, etc.)

_____ other interests (please specify)_____

_____

17. Does this student exhibit any problem behaviors?

_____ yes

_____ no

_____ don't know

If yes, please check:

_____ hyperactivity

_____ aggressiveness

_____ tardiness

_____ apathy

_____ other (please specify) _____

PLEASE DO NOT WRITE

IN THIS SPACE.

EXCUR (60) ____

EXCURT1 (61) ____
EXCURT2 (62) ____
EXCURT3 (63) ____
EXCURO1 (64) ____
EXCURO2 (65) ____
EXCURO3 (66) ____
EXCURO4 (67) ____

PRBEH (68) ____

PRBEH1 (69) ____
PRBEH2 (70) ____
PRBEH3 (71) ____
PRBEH4 (72) ____
PRBEHO1 (73) ____
PRBEHO2 (74) ____
PRBEHO3 (75) ____
PRBEHO4 (76) ____
PRBEHO5 (77) ____
PRBEHO6 (78) ____

RID (79-80) 0 4

****

Respondent's Name _____

School Position _____

Page 7

PLEASE DO NOT WRITE IN THIS SPACE.

CID ____ ____ ____ ____
(1 - 4)

Remediation Section (THIS SECTION OF SURVEY TO BE COMPLETED ONLY FOR STUDENTS WHO FAILED THE FALL, 1978, COMPETENCY TEST--ONE OR BOTH SECTIONS)

18. Did the student pass the Spring 1979 Competency Test?

_____ yes

_____ no

PASSS (5) ____

19. What were the student's scores on the Spring 1979 Competency Test?

_____ Reading

SRSC (6-8) ____ ____ __

_____ Math

SMSC (9-11) ____ ____ __

20. If scores are not available, please check reason.

The student

_____ moved

_____ was exempted

NAVSC (12) _____

_____ dropped-out

_____ other (please specify) _____

School Position_____

PLEASE DO NOT WRITE IN THIS SPACE.

21. Were special education services for the student altered as a result of his failure on the Fall 1978 Competency Test?

_____ yes

_____ no

If yes, what was changed? (Please check one or more.)

_____ placement (resource room, self-contained, tutor, etc.)

_____ Individualized Education Plan (IEP)

_____ personnel directing student's program (specify)

_____ special education teacher

_____ classroom teacher

_____ Competency Test remediation teacher

_____ time devoted to remedial programs

_____ remediation <u>within</u> special education program

_____ remediation program <u>separate from</u> special education program

_____ other (specify) _____

ASERV (13) ____

ASERV1 (14) ____
ASERV2 (15) ____
ASERV3 (16) ____
ASERV4 (17) ____
ASERV5 (18) ____
ASERV6 (19) ____
ASERV7 (20) ____
ASERV8 (21) ____
ASERV9 (22) ____
ASERV01 (23) ____
ASERV02 (24) ____
ASERV03 (25) ____
ASERV04 (26) ____
ASERV05 (27) ____
ASERV06 (28) ____
ASERV07 (29) ____
ASERV08 (30) ____

RID (79-80) 0 5

COMPETENCY TEST EVALUATION OF EXCEPTIONAL CHILDREN

P.O. Box 26
Carrboro, North Carolina 27510

Telephone: 919/966-4121, Ext. 214

SITE VISIT QUESTIONS

General Questions:

1. What is your opinion concerning handicapped children taking the Competency Test?

   A. Do you think handicapped children should

   _____be required to take the Competency Test?

   _____take a special test instead?

   _____not take a test at all?

   B. Do you agree with the present policy of giving a certificate of accomplishment to exceptional students who do not take or pass the test?

   C. Do you think the students receiving a certificate of accomplishment should participate in graduation exercises?

2. What has been the exceptional students' general reaction to the Competency Test?

   A. Have they found it extremely frustrating?

   B. Have they been eager to take the test, etc.?

   C. What has been the exceptional students' parents reaction to the test?

3. Do most exceptional students think it is important to have a high school diploma? If so, for what reasons? (For example, jobs, personal satisfaction, etc.)

4. How does the drop-out rate of the general student population in your school compare with the drop-out rate of exceptional students?

5. Do you feel the exceptional student's reading and math skills are accurately measured by the Competency Test?

Parental Involvement:

1. Do you think there is a noted difference in the parental involvement in the schools between the parents of the students who passed and the students who failed the Competency Test? (Such as: attending PTA meetings, assisting in the classroom, chaperoning trips, etc.)

Modifications:

1. Did the following administrators of the test get appropriate in-service training to implement modifications?

   A. Special education coordinators trained by the state?_____

   B. Administrators of the test trained by special education coordinators?

   _____

2. Do you believe that the students were properly selected to be eligible for using a modified test?

   If not, has there been improvement in the selection process since the testing began?

General Comments of Respondent:

School (LEA)_____

School Position of Respondent_____

_____

Interviewer_____

Date_____

APPENDIX B

ADDITIONAL STATISTICAL TABLES

Table B.1

Effects of Attrition on Sex of Students Sampled

Statistic		Male	Female
EMH Sample (n=252)			
Population Values	n	1196	709
	%	62.78	37.22
Sample Values	n	126	85
	%	59.72	40.28
Expected Value	$\bar{n}$	132.4	78.5
$\underline{X}^2(1)$	=	.85 (N.S.)	
LD Sample (n=185)			
Population Values	n	506	167
	%	75.19	24.81
Sample Values	n	129	39
	%	76.79	23.21
Expected Value	$\bar{n}$	126.3	41.6
$\underline{X}^2(1)$	=	.23 (N.S.)	
Other Handicaps (n=596)			
Population Values	n	323	270
	%	54.46	45.53
Sample Values	n	288	229
	%	55.70	44.29
Expected Value	$\bar{n}$	282.6	263.3
$\underline{X}^2(1)$	=	.32 (N.S.)	

Table B.2

Effects of Attrition on Race of Students Sampled

Statistic		Indian	White	Black	Other
EMH Sample (n=252)					
Population Values	n	33	538	1323	2
	%	1.74	28.38	69.78	0.10
Sample Values	n	3	69	137	1
	%	1.43	32.86	65.24	0.46
Expected Value	$\bar{n}$	3.6	59.6	146.5	0.2
$\chi^2(3)$	=	4.99 (N.S.)			
LD Sample (n=185)					
Population Values	n	8	398	259	-
	%	1.20	59.85	38.95	-
Sample Values	n	1	96	69	-
	%	0.60	57.83	41.57	-
Expected Value	$\bar{n}$	1.9	99.3	64.6	-
$\chi^2(2)$	=	.89 (N.S.)			
Other Handicaps (n=596)					
Population Values	n	15	384	186	8
	%	2.53	64.75	31.36	1.34
Sample Values	n	14	338	162	4
	%	2.70	65.25	31.27	0.77
Expected Value	$\bar{n}$	13.1	336.0	162.7	7.0
$\chi^2(3)$	=	1.35 (N.S.)			

Table B.3

Effects of Attrition on Parent Education of Students Sampled

Statistic		Grade School	Some HS	HS Grad	Post HS
EMH Sample (n=252)					
Population Values	n	576	683	367	60
	%	34.13	40.53	21.78	3.56
Sample Values	n	60	74	52	6
	%	31.25	38.54	27.08	3.13
Expected Value	$\bar{n}$	65.5	77.8	41.8	6.8
$\chi^2(3)$	=	3.24 (N.S.)			
LD Sample (n=185)					
Population Values	n	98	206	220	119
	%	15.24	32.04	34.22	18.51
Sample Values	n	24	51	55	34
	%	14.63	31.10	33.54	20.73
Expected Value	$\bar{n}$	24.9	52.5	56.1	30.3
$\chi^2(3)$	=	.54 (N.S.)			
Other Handicaps (n=596)					
Population Values	n	59	176	388	530
	%	11.13	22.07	40.00	26.79
Sample Values	n	48	104	179	123
	%	10.57	22.90	39.42	27.09
Expected Value	$\bar{n}$	45.8	90.9	164.8	110.3
$\chi^2(3)$	=	4.63 (N.S.)			

Table B.4

Effects of Attrition on Passage Rate of Students Sampled

Statistic		Reading Pass	Reading Fail	Math Pass	Math Fail
EMH Sample (N=252)					
Population Values	n	219	1688	134	1773
	%	11.48	88.52	7.03	92.97
Sample Values	n	72	139	59	152
	%	34.12	65.88	27.96	72.04
Expected Value	$\bar{n}$	NV[1]	NV	NV	NV
$X^2(1)$	=	NV		NV	
LD Sample (n=185)					
Population Values	n	376	298	320	354
	%	55.79	44.21	47.48	52.52
Sample Values	n	96	72	80	88
	%	57.14	42.86	47.62	52.38
Expected Value	$\bar{n}$	93.7	74.2	79.7	88.2
$X^2(1)$	=	.12 (N.S.)		.001 (N.S.)	
Other Handicaps (n=596)					
Population Values	n	392	204	353	243
	%	65.77	34.22	59.22	40.77
Sample Values	n	337	182	301	218
	%	64.93	35.06	57.99	42.00
Expected Value	$\bar{n}$	341.3	177.6	307.3	211.6
$X^2(1)$	=	.16 (N.S.)		.32 (N.S.)	

[1] Note: X^2 statistics for EMH sample not valid (NV) due to restriction placed on passing sample values.

Table B.5

Effects of Misclassification on Passage Rate of Students Sampled

Statistic		Reading		Math	
		Pass	Fail	Pass	Fail
EMH Sample (n=252)					
Population Values	n	219	1688	134	1773
	%	11.48	88.52	7.03	92.97
Sample Values	n	37	132	25	144
	%	21.89	78.11	14.79	85.21
Expected Value	$\bar{n}$	NV[1]	NV	NV	NV
$X^2(1)$	=	NV		NV	
LD Sample (n=185)					
Population Values	n	576	298	320	354
	%	55.79	44.21	47.48	52.52
Sample Values	n	76	48	64	60
	%	61.29	38.71	51.61	48.39
Expected Value	$\bar{n}$	69.1	54.8	58.8	65.1
$X^2(1)$	=	1.52 (N.S.)		1.30 (N.S.)	
Other Handicaps (n=596)					
Population Values	n	392	204	353	243
	%	65.77	34.22	59.22	40.77
Sample Values	n	242	168	216	194
	%	59.02	40.97	52.68	47.31
Expected Value	$\bar{n}$	269.6	140.3	242.8	167.1
$X^2(1)$	=	8.29 ($p < .005$)		7.27 ($p < .01$	

[1]Note: X^2 statistics for EMH sample not valid (NV) due to restriction placed on passing sample values.

Table B.6

Percentage of Tests Given to EMH Students by Different Administrators in Each Educational District

District	Class Teacher	Special Educator	Other
Northeast	42.86	57.14	0.00
Northwest	22.73	45.45	31.82
Central	17.24	82.76	0.00
South Central	40.00	60.00	0.00
North Central	13.51	81.08	5.41
Southwest	25.00	70.00	5.00
Northwest	41.67	33.33	25.00
Western	23.08	76.92	0.00
Total	25.15	67.07	7.78

$\underline{X}^2(14)=41.15$, $\underline{p} < .001$

Table B.7

Percentage of Tests Given to LD Students By Different Administrators in Each Educational District

District	Class Teacher	Special Educator	Other
Northeast	76.92	23.08	0.00
Southeast	33.33	33.33	33.33
Central	40.91	54.55	4.55
South Central	53.85	46.15	0.00
North Central	85.71	14.29	0.00
Southwest	31.58	60.53	7.89
Northwest	50.00	50.00	0.00
Western	15.38	84.62	0.00
Total	43.59	52.14	4.27

$\underline{X}^2(14)=41.15$, $\underline{p}<.004$

Table B.8

Percentage of Tests Given to Students With Handicaps Other Than LD and EMR by Test Administrators and Educational District*

District	Class Teacher	Special Educator	Other
Northeast	73.53	8.82	17.65
Southeast	50.00	35.71	14.29
Central	50.70	15.49	33.80
South Central	33.33	10.26	56.41
North Central	63.64	15.91	20.45
Southwest	63.93	29.51	6.56
Northwest	31.25	12.50	56.25
Western	61.11	33.33	5.56
Total	55.47	18.93	25.60

*Handicapped - Visual, Hearing, Multiple and Other.

$\underline{X}^2(14)=70.64$, $\underline{p} < .0001$

Table B.9

Percentage of Students Receiving Each Type of Modification by Handicap on Fall 1978 Test

Type		EMH	LD	VI	HI	MH	Other	Total[1]
	n	172	119	83	97	69	165	705
Large Print	n	4	5	31	--	12	---	52
	%	2.3	4.2	37.3		17.4		7.4
Audio Cassette	n	43	30	2	1	12	18	106
	%	25.0	25.2	2.4	1.0	17.4	10.9	15.0
Braille	n	--	--	--	--	--	--	---
	%							
Proctor Recorded Ans.	n	3	3	3	--	9	--	18
	%	1.7	2.5	3.6		13.0		2.6
Ext. Time/ Session	n	57	36	21	3	28	18	163
	%	33.1	30.3	25.3	3.1	40.6	10.9	23.1
Small Groups	n	70	32	5	3	35	27	172
	%	40.7	26.9	6.0	3.1	50.7	16.4	24.4
Sign Language	n	--	--	--	51	1	--	52
					52.6	1.4		7.4
Marks Booklet	n	26	20	21	--	13	9	89
		15.1	16.8	25.3		18.8	5.5	12.6
Hosp./ Homebound	n	--	--	--	--	1	11	12
	%					1.4	6.7	1.7
Other	n	3	--	2	5	2	1	13
	%	1.7		2.4	5.2	2.9	.6	1.8

[1]Note: n inflated due to use of multiple modifications
Based on correctly classified sample of 705

Table B.10

Percentage of Students Receiving Test Modifications by Race and Parent Educational Level

			EMH	LD	Other
Race	Indian	n	0	1	1
		%	-	100	33.33
	White	n	35	33	127
		%	74.47	42.86	48.85
	Black	n	66	25	59
		%	56.41	60.98	41.26
	Other	n	1	0	2
		%	100	-	66.67
	$\underline{X}^2(1)$		3.74	4.53	2.84
	p		NS	NS	NS
Parent Education	Elem	n	24	4	19
		%	42.86	28.57	50.00
	H.S.	n	35	20	28
		%	63.64	55.56	37.33
	H.S. Grad	n	26	22	63
		%	72.22	56.41	42.57
	Post H.S.	n	2	11	37
		%	100	42.31	43.02
	$\underline{X}^2(2)$		9.84	4.26	1.70
	p		.01	NS	NS

Note: $\underline{X}^2$'s based on collapsed categories.

Table B.11

Percentage of Sample Passing in Each Educational District

District		EMH		LD	
		Reading	Math	Reading	Math
Northeast	n	2	2	9	8
	%	1.18	1.18	7.56	6.72
Southeast	n	2	0	0	0
	%	1.18	-	-	-
Central	n	6	4	18	17
	%	3.55	2.37	15.13	14.29
South Central	n	3	1	7	7
	%	1.78	.59	5.88	5.88
North Cantral	n	7	4	6	4
	%	4.14	2.37	5.04	3.36
Southwest	n	6	4	20	15
	%	3.55	2.37	16.81	12.61
Northwest	n	6	5	7	6
	%	3.55	2.96	5.88	4.20
Western	n	5	5	7	5
	%	2.96	2.96	5.88	4.20

Table B.12

Percentage in Sample Passing by Type of Test Administrator

	EMH		LD		Other	
Reading Test	n	%	n	%	n	%
Classroom Teacher	6	3.59	37	31.62	157	41.87
Special Educator	30	17.96	32	27.35	25	6.67
Other	1	.60	3	2.55	47	12.53
$\underline{X}^2(2)$		4.47		4.74		44.06
p		NS		.09		.0001
Math Test	n	%	n	%	n	%
Classroom Teacher	5	2.99	30	25.64	144	38.40
Special Educator	20	11.98	27	23.08	25	6.67
Other	0	-	2	1.71	34	9.07
$\underline{X}^2(2)$		3.33		2.58		42.87
p		NS		NS		.0001

Tabel B.13

Percentage Passing by Professional Opinion Re Appropriate Use of Modifications (Fall, 1978)

% Pass	Reading Mods				Math Mods			
	yes	no	$X^2(1)$	p	yes	no	$X^2(1)$	p
EMH	30.21	3.70	8.02	.004	20.83	0	NV	-
LD	54.55	28.57	NV	--	45.45	14.29	NV	-
VI	66.67	0	NV	--	63.16	0	NV	-
HI	70.37	2.70	33.26	.0001	66.67	2.70	30.59	.0001
MH	31.58	10.00	1.86	NS	23.68	10.00	0.89	NS
Other	56.86	22.22	NV	--	43.14	22.22	NV	-

Note: Tests not valid (NV) due to small call frequency.

Table B.14

Percentage Passing by Number of Years in NC Public Schools

		EMH		LD	
		Reading	Math	Reading	Math
1 - 2	n	-	-	3	2
	%			100.00	66.66
3 - 5	n	2	1	2	3
	%	1.60	12.50	50.00	75.00
6 - 8	n	0	0	8	8
	%	-	-	72.73	72.73
9 - 11	n	24	21	46	38
	%	19.20	18.10	59.74	49.35
	$X^2(3)$	NV	NV	NV	NV
	p	-	-	-	-

Table B.15

Percentage Passing by Grade Retention

	% Pass	Repeated Grade	Not Retained	$X^2(1)$	p
Reading					
	EMH	21.43	24.29	0.17	NS
	LD	44.74	71.21	7.14	.007
Math					
	EMH	13.10	18.57	0.87	NS
	LD	28.95	62.12	10.61	.001

Table B.16

Percentage Passing by History of Unexcused Absence

	% Pass	History yes	no	$\underline{X}^2(1)$	p
Reading					
	EMH	18.92	22.03	0.16	NS
	LD	54.84	62.67	0.56	NS
Math					
	EMH	8.11	16.10	1.47	NS
	LD	38.71	53.33	1.87	NS

Table B.17

Percentage Passing by Professional Opinion About Impairment due to Excused Absence

	% Pass	Performance Impaired yes	no	$\underline{X}^2(1)$	p
Reading					
	EMH	42.86	16.30	NV	-
	LD	50.00	67.74	1.90	NS
Math					
	EMH	23.81	11.96	1.97	NS
	LD	55.56	50.00	0.17	NS

Table E.18

Percentage Passing by Social/Personal Factors

% Pass		Extracurricular Activities				Problem Behavior			
		yes	no	$\underline{X}^2$	p	yes	no	$\underline{X}^2$	
Reading									
	EMH	54.55	45.45	4.14	.04	25.71	74.29	0.68	N
	LD	50.00	50.00	0.55	NS	57.58	63.75	0.37	N
Math									
	EMH	63.64	36.36	6.43	.01	25.00	75.00	0.54	N
	LD	52.73	47.27	.001	NS	45.45	56.25	1.09	N

Table B.19

Percentage of Students Identified at Risk for Failure Who Passed Competency Test

Group			Reading	Math
EMI	At Risk	n	29	20
		%	19.46	13.42
	Not Identified	n	4	2
		%	36.36	18.18
	$\underline{X}^2(1)$		1.78	.19
	p		NS	NS
LD	At Risk	n	45	37
		%	54.88	45.12
	Not Identified	n	26	22
		%	78.79	66.67
	$\underline{X}^2(1)$		5.69	4.37
	p		.01	.03

Table B.20

Percentage Passing for Students Identified At Risk Who Received Special Services Prior to November 1978

	Group		Reading	Math
EMH	Special Services	n	21	12
		%	16.41	9.38
	No Services	n	7	7
		%	35.00	35.00
	$\chi^2(1)$		3.89	10.15
	p		.04	.001
LD	Special Services	n	31	23
		%	50.00	37.10
	No Services	n	20	20
		%	68.97	68.97
	$\chi^2(1)$		2.88	8.05
	p		.08	.004

Table B.21

Educational Placement of EMH and LD Students by Passage Rate Fall 1978

Placement		Grade 10 Pass	Grade 10 Fail	Grade 11 Pass	Grade 11 Fail
EMH Sample					
Mainstream Classes/ No Special Services	n	3	9	3	10
	%	1.77	5.32	1.77	5.92
Mainstream Classes/ Support Services	n	0	18	0	17
	%	-	10.65	-	10.59
Part Time Special Educ/ Resource Room	n	12	95	5	96
	%	7.10	56.21	2.95	56.80
Full Time Special Educ Class	n	1	23	1	21
		.59	13.60	.59	12.42
Not Known		8		16	
		4.73			
LD Sample					
Mainstream Classes/ No Special Services	n	16	5	13	3
	%	13.67	4.27	10.92	2.52
Mainstream Classes/ Support Services	n	25	11	24	8
	%	21.36	9.40	20.16	6.72
Part Time Special Educ/ Resource Room	n	17	24	27	30
	%	14.52	20.51	22.68	25.21
Full Time Special Educ Class	n	0	2	0	2
	%	-	1.70	-	1.68
Not Known	n	19		12	

Table B.22

Use of Different Modifications with Spring 1979 Test

Group		yes	no
EMH	n	37	95
	%	28.03	71.97
LD	n	12	45
	%	21.05	78.95
VI	n	5	36
	%	12.20	87.80
HI	n	3	17
	%	15.00	85.00
MH	n	5	42
	%	10.64	89.36
Other	n	25	36
	%	40.98	59.02

Note: % correctly classified who failed Fall 1978

Table B.23

Frequency of Use of Different Modifications on Spring Test
by Percent Passing Each Test

Different Mods			Reading	Math
EMH	yes	n	3	2
		%	9.38	5.88
	no	n	20	13
		%	26.32	16.25
	Total (Different)	n	32	34
		%	29.63	29.82
LD	yes	n	5	4
		%	62.50	50.00
	no	n	14	14
		%	48.28	37.84
	Total (Different)	n	8	8
		%	21.62	17.78

Note: $\underline{X}^2$s not valid due to small cell frequencies

Table B.24

Percentage of Students Receiving Each Type of Modification by Handicap in Spring 1979 Test

Type		EMH	LD	VI	HI	MH	Other	Total
	N	144	64	21	52	54	81	416
Large Print	n	7	6	3	-	2	6	24
	%	4.8	9.4	14.3		3.7	7.4	5.8
Audio Cassette	n	16	9	-	1	6	8	40
	%	11.1	14.1		1.9	11.1	9.9	9.6
Braille	n	-	-	1	-	-	-	1
	%			4.7				0.2
Proctor Recorded Answers	n	1	-	-	-	-	1	2
	%	0.6					1.2	0.4
Extended Time/ Sessions	n	24	5	-	4	4	11	48
	%		7.8		7.7	7.4		11.5
Small Groups	n	28	5	-	2	4	22	61
	%	16.7	7.8		3.8	7.4	13.6	14.7
Sign Language	n	-	-	-	1	-	-	1
	%				1.9			0.2
Marks Booklet	n	11	3	2	2	2	7	27
	%	7.6	4.7	9.5	3.8	3.7	8.6	6.5
Other	n	9	-	1	2	-	3	15
	%	6.3		4.7	3.8		3.7	3.6

Notes: Students who failed either test in Fall 1978. Hospital/Homebound not used in this sample.

Table B.25

Frequency of Change in Use of Test Modifications for Spring 1979

Type	EMH			LD		
	Number Used	Number Changed	% Changed	Number Used	Number Changed	% Changed
Large Print	7	5	71.4	6	3	50.00
Audio Cassette	16	10	62.5	9	6	66.66
Extended Time/Session	24	8	33.33	5	2	40.00
Small Group	28	9	32.14	5	4	80.00
Marks Booklet	11	4	36.36	3	2	66.66

Note: Number changed refers to those who received a Spring modification not used in the Fall.

Table B.26

Characteristics of Students Passing Spring 1979 Test

Group			EMH		LD	
			Reading	Math	Reading	Math
		N	109	116	38	45
Sex	M	n	12	7	19	16
		%	19.67	11.11	59.38	42.11
	F	n	11	8	1	2
		%	22.92	15.09	16.67	28.57
Race	White	n	4	3	9	10
		%	13.79	10.00	50.00	47.62
	Black	n	19	12	11	8
		%	24.36	14.29	55.00	33.33
Parent Education						
	Elem	n	9	7	0	1
		%	21.95	17.07	--	25.00
	Some H.S.	n	6	4	11	7
		%	19.35	11.43	68.75	41.18
	H.S. Grad	n	4	4	4	5
		%	16.67	15.38	33.33	31.25
	Post H.S.	n	0	0	3	3
		%	-	-	75.00	50.00

Table B.27

Percentage Passing Spring 1979 Test by Ability Level

IQ Level		EMH		LD	
		Reading	Math	Reading	Math
< 50	n	1	1	-	-
	%	4.76	4.76		
61 - 73	n	15	8	-	-
	%	26.32	12.70		
74 - 85	n	7	6	9	9
	%	23.33	19.35	47.37	40.91
86 - 95	n	-	-	8	5
	%			57.14	38.46
> 96	n	-	-	-	3
					75.00

Table B.28

Percentage Passing Spring 1979 Test by Performance Level in Same Area Tested

Grade Level		EMH		LD	
		Reading	Math	Reading	Math
Elem (1 - 6)	n	21	13	17	13
	%	21.40	12.62	51.52	43.33
J H (7 - 8)	n	0	0	1	2
	%			50.00	40.00
Sr H (9 - 10)	n	-	-	1	1
	%	-	-	100.00	100.00

Table B.29

Percentage Passing Spring Reading by Program Changes After Fall Failure

Type Change		EMH		LD	
		Pass	Total	Pass	Total
Placement	n	9	22	7	11
	%	40.91	24.72	63.64	40.74
IEP	n	12	31	7	13
	%	24.49	34.83	53.15	48.15
Service Personnel	n	8	31	5	11
	%	25.81	34.83	45.45	40.74
Competency Test Remediation	n	10	39	9	16
	%	25.64	43.33	56.26	59.26
Time in Special Program	n	12	37	6	12
	%	32.43	41.57	50.00	44.44
Remediation Part of Special Educ	n	16	21	10	17
	%	22.54	23.33	58.82	62.96
Separate Remedial Program	n	12	21	4	9
	%	28.57	23.60	44.44	33.33

Table B.30

Percentage Passing Spring Math by Program Changes After Fall Failure

Type Change		EMH		LD	
		Pass	Total	Pass	Total
Placement	n	5	24	5	9
	%	20.83	24.74	55.56	40.91
IEP	n	9	55	6	12
	%	16.36	56.70	50.00	54.55
Service Personnel	n	5	33	4	10
	%	15.15	34.02	40.00	45.45
Competency Test Remediation	n	7	41	8	14
	%	17.07	41.84	57.14	63.64
Time in Special Program	n	8	41	5	11
	%	19.51	42.27	45.45	50.00
Remediation Part of Special Educ	n	11	76	8	15
	%	14.47	77.55	53.33	68.18
Separate Remedial Program	n	7	48	4	8
	%	14.58	49.48	50.00	36.36

Table B.31

Percentage Students Passing Spring 1979 Test Following Change in Special Education Services

	Change		Reading	Math
EMH	yes	n	21	14
		%	23.60	14.43
	no	n	2	1
		%	11.11	5.88
	Total (Change)	n	89	97
		%	83.18	85.09
LD	yes	n	15	12
		%	55.56	38.71
	no	n	4	5
		%	50.00	45.45
	Total (Change)	n	27	31
		%	77.14	73.81

Table B.32

Percentage Passing Spring Tests by 11th Grade Educational Placement

11th Grade Placement		EMH		LD	
		Reading	Math	Reading	Math
Mainstream/ No Special Service	n	5	5	2	2
	%	50.00	45.45	66.67	66.67
Mainstream/ Support Service	n	2	3	6	5
	%	13.33	17.65	75.00	50.00
Part Time Special Educ/Resource Room	n	20	14	11	10
	%	23.53	15.22	44.00	34.48
Full Time Special Class	n	2	1	1	1
	%	11.76	5.88	50.00	50.00

APPENDIX C

SITE VISIT RESULTS

SITE VISIT RESULTS

Introduction

The opinions of school personnel in the field were sampled in addition to assessing the effects of various factors on the Competency Test performance of exceptional students. These opinions provided important information in four areas: 1) the appropriateness of competency testing for exceptional students, 2) perceptions of exceptional student and parent reactions to competency testing, 3) the accuracy of the Competency Test in measuring the skills of exceptional students, and 4) the appropriateness of modifications in Test procedures for exceptional students. Hopefully, these responses will facilitate greater communication between school personnel at the local level and the State Department of Public Instruction. Particular stress will be placed on opinions of school personnel with respect to accuracy with which the Competency Test measures the skills of exceptional students and the appropriateness of modifications chosen for them.

Methods

The opinion of public school personnel from 15 high schools in the State (15 LEAs) was sampled. School systems were selected to obtain the greatest possible diversity with respect to the following demographic variables: size of school, urban or rural locale, and geographic location (the 8 educational districts in the State).

A range of opinion was sought within each school by soliciting opinions from administrators, counselors and special educators. Three categories of respondents were constructed: 1) administrators -- principals, assistant principals, special education coordinators, 2)

personnel with specialized but limited contact with exceptional students -- counselors and testers, and 3) special educators. An attempt was made to sample at least one person in each category in each school. Eighteen principals and assistant principals, 15 counselors or testers and 17 teachers of exceptional students were sampled. Thus, there were a total of 50 school personnel sampled.

A letter of explanation concerning the project and a questionnaire containing multiple-choice questions were mailed to the principal of each school. (See Appendix A for a copy of the Site Visit Questionnaire.) The principal was asked to invite school personnel involved with competency testing to a meeting to be held at the school at a later date. During the meeting, school personnel were asked to be prepared to respond during an interview with a project staff member. Below are summary tables of responses to the multiple-choice questions augmented by summaries of comments relevant to each question.

Results

The Appropriateness of Competency Testing of Exceptional Students

Respondents were asked to indicate whether exceptional students should be given the Competency Test in the same form as other students, in a modified form, or not at all. The results are reported in Table C.1.

These results indicate that: a) teachers were more likely than either administrators or counselors and testers to favor using a modified test with exceptional students, b) various types of respondents were about equally divided on the issue of whether to exempt some students, and c) exceedingly few respondents felt that the Competency Test should not be required of exceptional students.

Table C.1

Appropriateness of Competency Testing for Exceptional Students

	Response Categories			
Type of Respondent	same test	modified test	exempt some students	exempt all students
administrators (n=18)	10	2	6	0
counselors/testers (n=15)	9	1	2	3
special ed. teachers (n=17)	5	7	4	1
Totals	24	10	12	4

Respondents felt strongly about the issue of modifications and exemptions as evidenced by the fact that 82% of respondents commented on this question. Most of those respondents who favored exceptional students taking the same Competency Test as other students and who offered comments (71%) reflected the concern of accurately measuring all students' skills in a manner that also affords comparison across groups of students. They felt that this should be the primary goal of competency testing and that allowing extensive modifications or exceptions jeopardizes this goal. Their comments often expressed, explicitly or implicitly, the opinion that exceptional students were placed at a disadvantage in taking the Competency Test like other students (86% of respondents providing comments) but felt that this was unavoidable given the larger goals of competency testing. Some of the comments suggested a way around this problem (24% of those commenting): give the Test or a similar test much earlier than 11th grade and, perhaps, repeatedly as a way to gauge students' progress and provide appropriate remediation.

Most of the comments of those respondents who favored a modified test or no Competency Test for some or all exceptional students (58%) reflected the concern that at least some educable mentally handicapped (EMH) students were not able to pass the Test as typically administered. An even greater proportion (88%) felt that the Test was too difficult for at least some EMH students. The direct or indirect implication of all these comments (100% of comments fell into one or both categories) was the Competency Test would be psychologically damaging to at least some EMH students. Thus, these comments reflected

concern for the welfare of exceptional students and provided the basis for their decision about the appropriateness of competency testing for exceptional students. It is interesting to note that few (8%) of these comments indicated disagreement with the philosophy of competency testing though some (21%) indicated that it was a breach of faith to "change the rules" for a high school diploma at 11th grade. Many general comments (42%) also reflected this opinion. Further, most respondents felt that the drop-out rate for exceptional students was lower than that for other students.

All respondents felt that exceptional students should participate in graduation exercises whether they passed the Competency Test or not, and they also agreed that most exceptional students felt that it was important to have a diploma.

Competency Testing

Respondents were asked whether they felt that the Competency Test was "extremely frustrating" for exceptional students. The results are reported in Table C.2. These results show that nearly all of the respondents believed that the Test was very frustrating for at least some exceptional students (88% of respondents, excluding those who did not express an opinion). This result was qualified by the comments of some respondents (44%) who felt that the Test was frustrating to at least some exceptional students. However, other respondents reported that some exceptional students were eager to take the Competency Test. These comments often referred to the hope of passing the Test held by LD students and some EMH students. These comments do not seem, then, to contradict the feeling that the Competency Test was very frustrating for some EMH students. (It is difficult to assess in numbers or

Table C.2

Do Exceptional Students Find the Competency Test Extremely Frustrating?

Type of Respondent	Response Categories			
	yes	some have	no	didn't know or no response
administrators (n=18)	10	5	3	0
counselors/testers (n=15)	9	3	1	2
special ed. teachers (n=18)	10	5	2	0
Totals	29	13	6	2

Table C.3

What Has Been the Reaction of Parents of Exceptional Students to Competency Testing?

Types of Respondent	Response Categories			
	Frustrated/ negative	mixed/ neutral	positive	no reaction/ no response
administrators (n=18)	3	8	1	6
counselors/testers (n=15)	3	3	1	8
special ed. teachers (n=17)	4	4	0	9
Totals	10	15	2	23

percentages the students who did experience such frustration.)

Respondents were also asked to summarize the reaction of the parents of exceptional students to the Competency Test. The results are reported in Table C.3 and indicate that: 1) many respondents were unaware of any parental reactions and 2) relatively few respondents (20%) indicated a primarily frustrated or negative reaction on the part of parents. This result may be due to the low degree of involvement in the school by the parents of exceptional students reported by respondents. Whatever the reason for lack of positive or negative responses of parents of exceptional students, it seems the case that respondents' strong feeling about the competency testing of such students was not based on parents' expressed opinions.

The Accuracy of Competency Test in Measuring Skills of Exceptional Students

Most respondents felt that the Competency Test did not measure the skills of exceptional students accurately, as Table C.4 shows. Most (77%) of the respondents who felt that the Test did not accurately measure the skills of exceptional students commented on the content of the Test and/or the administration of the test. Nearly half (48%) of their comments focused on the content of items on the test. Of those, most (53%) were concerned about the relation between what the Competency Test seeks to measure and what the public schools are or should be doing to prepare exceptional students for adult life. It is noteworthy that few (8%) of the respondents disagreed with the use of competency testing to encourage teaching basic skills in reading and math. Some respondents (38% of those commenting on the content of the test) felt that the Competency Test Commission should seek more varied opinion

Table C.4

Did the Competency Test Accurately Measure the Skills of Exceptional Students?

Type of Respondents	Response Categories		
	Yes	No	Don't Know
administrators (n=18)	4	12	2
counselors/testers (n=15)	1	11	3
teachers (n=17)	1	12	4
Totals	6	35	9

Table C.5

Were Students Properly Selected to be Eligible for Using a Modified Test?

Type of Respondent	Response Categories		
	yes	no	don't know/ no response
administrators (n=18)	12	1	5
counselors/testers (n=15)	9	0	6
special ed. teachers (n=17)	10	1	6
Totals	31	2	17

- especially with respect to math - about what constitutes the range and types of basic and applied skills. They felt that these skills should be specified so that they can be taught, not only to help students pass the Test but also to properly prepare them for adulthood. Other respondents (15%) felt that the reading level on the Test was too advanced - not only on the reading section but also on the math section.

Further comments on the Competency Test focused on the administration of the Test. These comments (from 52% of respondents) made by testers or special educators, reflected the opinion that the Test format was too difficult or cluttered or that the questions were worded poorly. Specifically, 40% of the respondents felt that there were too many questions per page and that the colors used were distracting, especially to LD students. Others (20%) felt that the test was too long for some exceptional students and that these students would have performed better if the Test were given in more and shorter sessions. (Interestingly, extended time and increased sessions were a modification option provided by the State.)

What emerges from an evaluation of the comments of those who found the Competency Test wanting in some way leads to an altered assessment of the results in Table C.3. Few respondents questioned the concept of competency testing; most comments were directed at specifics of content or administration.

The Appropriateness of Modifications in Test Procedure for Exceptional Students

Respondents were asked to indicate whether they thought that modifications were properly selected to use with exceptional students on the Competency Test. The results are reported in Table C.5. These

results show that most school personnel who were knowledgeable about modification options felt that they had been appropriately matched to students. Those who felt that modifications had not been selected appropriately for students questioned the use of the audio cassette. Also, qualifying comments of some respondents who felt that modifications had been selected appropriately questioned the cassettes (16% of both categories). Concerns about the use of cassettes were as follows: 1) The questions on the cassette were not numbered and the tape recorders typically did not have inch markers. So, students who lost their place on the tape had great difficulty finding it again. 2) Also, the quality of many tape recorders was poor, which resulted in problems with students hearing the whole question clearly. 3) Some respondents felt that practice with the cassettes would have helped alleviate these problems; some suggested that having a teacher read the questions to small groups would be better. 4) Two respondents noted that the large print edition was inconvenient because of its bulky size.

Respondents were also asked whether they felt that enough training had been provided by the State to Test Coordinators and by test coordinators to individual testers. Their answers are summarized in Table C. 6. These figures show that: (a) many respondents did not feel qualified to answer these questions, (b) of those who did respond a sizeable proportion felt that training in the use of modifications was not adequate, and (c) administrators were less likely than other types of personnel to feel that there was inadequate preparation for the use of modifications. Interestingly, all of the comments of those who felt that more training was needed referred to problems with the use of

Table C.6

Did Coordinators Receive Enough Training to Implement Modifications?

Type of Respondent	Response Categories		
	yes	no	don't know/ no response
administrators (n=18)	9	3	6
counselors/testers (n=15)	5	5	5
special ed. teachers (n=17)	2	6	9
Totals	16	14	20

Did Teachers Receive Enough Training in the Use of Modifications?

Type of Respondent	Response Categories		
	yes	no	don't know/ no response
administrators (n=18)	9	3	6
counselors/testers (n=15)	5	6	4
special ed. teachers (n=17)	3	5	9
Totals	17	14	19

audio cassettes.

Summary of Respondents' Opinions and Recommendations

Responses to the questionnaire on competency testing and comments offered during site visits that elaborated on those responses may be summarized as follows:

1. There is general acceptance of the concept of competency testing for exceptional students among school personnel in the field who work with these students.

2. It is also generally felt that at least some exceptional students (particularly EMH students) find the Competency Test extremely frustrating. (Statistics bear this out with a very low passing rate within the sample for EMH students.)

3. School personnel are divided on the issue of whether exceptional students should be required to take the Competency Test as other students. Some feel that the goal of measuring basic skills and making that a criterion for a diploma requires that all students be treated alike. Others feel that the Test is psychologically damaging to some exceptional students and that it is unethical to change the requirements for a diploma "so late in the game" for these students; therefore, the Test should be modified or discarded for some exceptional students.

4. Few respondents indicated that parents of exceptional students had voiced strong objection to competency testing. In fact, little response of any kind by parents was reported by school personnel.

5. Questions were raised about aspects of the format and content of the Competency Test and the use of audio cassettes, including (a) the range of items on the math section, particularly what some felt to

be an overemphasis on "accounting Math," (b) the reading level on the math section may have prevented some poor readers from doing better on math, (c) the difficulty of the reading section may be too high, (d) some questions may be poorly worded, (e) there may be too many questions per page and the colors used may be too distracting, particularly for LD students, and (f) there may be some problems with the current procedures for using the audio cassette modification.

Summary of respondents' recommendations:

1. If the State is to require all students to pass the Competency Test to get a diploma, then: (a) steps should be taken much earlier than 11th grade to identify students at risk for failing the Test and (b) appropriate remediation should be undertaken as early as possible.

2. Procedures for the use of audio cassettes should be improved.

3. The rationale for the range of items on the math section and the reading level of those items should be reviewed.

4. The rationale for the present Test format should be reviewed.